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ADAPTING SELF-DIRECTED ONLINE PROFESSIONAL DEVELOPMENT FOR
NEBRASKA PUBLIC LIBRARIANS

by

Holli Kay Duggan

DISSERTATION

Presented to the Faculty of
The Graduate College at the University of Nebraska
In Partial Fulfillment of Requirements
For the Degree of Doctor of Education

Major: Educational Studies

Under the Supervision of Professor Edmund Hamann

Lincoln, Nebraska

August, 2018

ADAPTING SELF-DIRECTED ONLINE PROFESSIONAL DEVELOPMENT FOR
NEBRASKA PUBLIC LIBRARIANS

Holli Kay Duggan, Ed.D.

University of Nebraska, 2018

Advisor: Edmund Hamann

From Ainsworth to Yutan, from library systems with twelve branches (i.e., Omaha) with a legal service area population of 537,709 to single libraries serving a population of less than 1,000 (which describes 60% of all public libraries in Nebraska), the Nebraska Library Commission serves very different constituencies all with different needs and different resources. Given that diversity of librarianship, as a “Problem of Practice” (Carnegie Program for the Education Doctorate, 2014) I needed to learn how to optimize the continuing education opportunities offered by the Nebraska Library Commission to this diverse constituency. This included attending to the learning needs of public librarians who were enrolled in the Nebraska Public Librarian certification program and, more specifically, the online Basic Skills classes.

My problem of practice centers around questions of optimizing continuing education opportunities and tools for public librarians who then are better equipped to continue providing quality and equitable services to their communities. Working with instructors, who are made up of Nebraska Library Commission staff members and Regional Library System Directors, as well as with the students who are enrolled in the Basic Skills classes provides the opportunity for collaboration and partnerships to apply scholarly inquiry directly to practice in order to improve continuing library education in the state. This dissertation seeks to illustrate the connections between my specific

problem of practice, the development and evolution of a meaningful solution while exploring future directions as new questions of practice arose, and my role as a practitioner, educator, and scholar of CPED.

This dissertation includes discussion of the first self-paced cataloging module and writing about the design process. This design process included critically reviewing previous Basic Skills courses, several redesigns of the Organization of Materials course, as well as the development of an online practice course for the Moodle learning management system. Finally, this study includes the self-paced Organization of Materials module and evaluation of this first iteration followed by discussion of next steps or how this program will progress as this study continues to evolve past this dissertation.

This dissertation is dedicated to my husband and family who have provided unwavering encouragement, support, and understanding every step of the way.

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Stephanie Malone has spent endless hours listening to me talk about this research from each of our classes together, through comps, and now throughout this dissertation stage. Our weekly writing dates at Meadowlark (and countless Americanos) kept me going and your support has been appreciated so very much.

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TABLE OF CONTENTS

Chapter 1: INTRODUCTION	1
Project Summary	4
Nebraska Public Libraries and Public Librarian Certification	12
Nebraska Public Librarian Certification Program and Basic Skills	
Coursework	16
Research Project Limitations	22
Definition of Terms	23
Chapter 2: REVIEW OF THE LITERATURE	26
Theoretical Framework	27
Adult Learning and Self Direction	28
Assumptions and Principles of Adult Learning	29
Constructivism: Learning as a Process	33
Incorporating Constructivist Principles into Online Learning	34
The Role of Experience in Adult Learning	37
Connectivism	40
Online Professional Development	43
Design and Delivery of Online Learning Experiences	46
Professional Development of Librarians and Technical Services	50
Chapter 3: ITERATIVE AND REFLECTIVE DESIGN PROCESSES: PART I –	
METHODOLOGY	54
Research Questions	54

Initial Research Design	56
Self-Paced Modules Leading into Advanced Instructor-Led Classes	62
Initial Steps to Self-Paced Cataloging Module	66
Simplifying Systems, Clarifying Expectations, and Focusing Content	71
Development of a Moodle Practice Course	75
Second Redesign of the Organization of Materials Instructor-Led Course	76
Chapter 4: ITERATIVE AND REFLECTIVE DESIGN PROCESSES: PART II –	
LESSONS AND REDESIGN	85
Design of the Self-Paced Organization of Materials/Cataloging Module	85
Testing of the Self-Paced Organization of Materials/Cataloging Module	89
Chapter 5: EVALUATION AND FUTURE DIRECTIONS	97
Reflections on the Initial Design Process	97
Evaluation of the Preliminary Self-Paced Module	102
Changes to the Existing Nebraska Public Librarian Certification Program	111
Next Steps and Considerations	115
REFERENCES	118
APPENDICES	
A: City of Omaha Library Specialist Job Description	125
B: Example MARC Assignment from In-Person Workshop	128
C: Continuing Education Coordinator Job Description	129
D: Basic Skills Syllabus	130
E: Moodle Practice Course	133

F: Updated 2018 Organization of Information Course	138
G: Welcome to Organization of Materials Message	143
H: Organization of Materials 2018 Instructor-Led Course Student Feedback	147
I: Preliminary Self-Paced Organization of Information Module	154
J: Organization of Materials Self-Paced Module Student Feedback	158

LIST OF FIGURES

1.1: Certification Program Enrollment	17
2.1: Dependent Learner to Self-Directed Adult Learner	28
2.2: Zone of Proximal Development	34
3.1: Self-Paced Learning Module Development Cycle	56
3.2: Certification Program Pathway	61
5.1: Course Categories and Competencies	101

LIST OF IMAGES

3.1: Organization of Materials 2017 Homepage Screenshot	68
3.2: Forum Assignment Screenshot	71
3.3: Updated Organization of Materials Homepage Screenshot	73
3.4: Activity Completion Screenshot	73
3.5: Updated Housekeeping Section Screenshot	78
3.6: Topic 1: Organizing the Library Screenshot	78
3.7: Updated Forum Assignment Screenshot	80
4.1: Moodle Lesson Activity Description	86

5.1: Lesson Navigation Screenshot	108
5.2: Lesson Review Screenshot	109
5.3: Omnibase Course List Screenshot	113
5.4: Student CE Record Example	114

LIST OF TABLES

1.1: Basic Skills Registration Numbers	10
1.2: Legal Service Area Populations and Librarians Employed in Nebraska Public Libraries	14
1.3: Librarians Enrolled in the Certification Program and Levels	16
5.1: Transition Table from In-Person Workshops to Online Basic Skills Classes	112

CHAPTER 1 – INTRODUCTION

From Ainsworth to Yutan, from library systems with twelve branches (i.e., Omaha) with a legal service area population of 537,709 to single libraries serving a population of less than 1,000 (which describes 60% of all public libraries in Nebraska), the Nebraska Library Commission serves very different constituencies all with unique needs and varying resources. Given that diversity of librarianship, as a “Problem of Practice” (Carnegie Program for the Education Doctorate, 2014) I needed to learn how to optimize the continuing education opportunities offered by the Nebraska Library Commission. This included attending to the learning needs of public librarians who were enrolled in the Nebraska Public Librarian certification program and, more specifically, the online Basic Skills classes.

Through my previous coursework in Library Science (M.A.) and Education (M.A.), and through the last four years in the Carnegie Program on the Education Doctorate (CPED) at the University of Nebraska-Lincoln (during which I have changed jobs), my professional practice has focused on issues of online learning, distance library services, and digital learning tools. In my current role, as the full-time Continuing Education Coordinator for the Nebraska Library Commission, my focus and responsibility are developing professional development resources and tools for the librarians in Nebraska, who range from full-time to part-time and from those with years of experience to those with little formal training.

The vision of the Carnegie Program on the Education Doctorate is to “apply the CPED framework to the preparation of educational leaders to become well-equipped scholarly practitioners who provide stewardship of the profession and meet the

educational challenges of the 21st century” (n.d.) and the Guiding Principles have helped to shape this scholarly inquiry, although working primarily with public library systems as a part of a state agency is different than the public education domain where most CPED scholars reside. Although the education context may be different, my practice as an educator remains relevant, even though I’ve had to convert the guiding principles to my own practice tying them to both the role libraries and to the goals of the Nebraska Public Librarian Certification program.

Within each community, the roles of public libraries are many, including providing open and equitable access to information, encourage community engagement and inclusion, and acting as a bridge to community resources. The American Library Association’s *Code of Ethics* (2008) states that the first principle is that “we [librarians] provide the highest level of service to all library users through appropriate and usefully organized resources; equitable service policies; equitable access; and accurate, unbiased, and courteous responses to all requests.” The intent of the continuing education and certification program in Nebraska is to:

- Improve library service throughout the state
- Motivates librarians to acquire, maintain, and develop skills through basic and continuing education
- Provides guidelines for public library boards to use in selecting and retaining personnel

- Recognizes public librarians who update their knowledge and skills on a continuing basis to provide better library service for the community
(Nebraska Library Commission, 2017)

My problem of practice centers around questions of optimizing continuing education opportunities and tools for public librarians who then are better equipped to continue providing quality and equitable services to their communities. Working with instructors, who are made up of Nebraska Library Commission staff members and Regional Library System Directors, as well as with the students who are enrolled in the Basic Skills classes provides the opportunity for collaboration and partnerships to apply scholarly inquiry directly to practice in order to improve continuing library education in the state. This dissertation seeks to illustrate the connections between my specific problem of practice, the development and evolution of a meaningful solution while exploring future directions as new questions of practice arose, and my role as a practitioner, educator, and scholar of CPED.

Discussion in this introductory chapter is organized into the following sections: (1) the project summary, (2) Nebraska public libraries and public librarian certification, (3) Nebraska public librarian certification program and Basic Skills coursework, (4) research project limitations, and (5) definition of terms. These sections are intended to provide context to this “Problem of Practice” (Carnegie Program for the Education Doctorate, n.d.), as well as an introduction to Nebraska public libraries, the public librarian certification program, and the Basic Skills classes. This first chapter is then followed by: a literature review in chapter two, the design research process in chapter

three, the development of a self-paced cataloging module in chapter four, and evaluation and future directions discussed in chapter five.

Project Summary

According to Gerald Pine (2009), “Action research is change research, a nonlinear, recursive, cyclical process of study designed to achieve concrete change in a specific situation, context, or work setting to improve teaching/learning” (p. 30). The intent of this dissertation project is to begin that iterative research process with a small design study. How can these classes be made more readily accessible and more relevant to their needs while working within the constraints of my own practice? First, I discuss the design and development process for the initial self-paced online learning module, *Organization of Information*, which is the first step in learning cataloging concepts. Creating self-paced modules will allow subsequent instructor-led classes to focus on more advanced topics to build deeper skills while not losing time teaching students how to use the learning management system or other basic library concepts. The self-paced module will also include an evaluation component that, per tenets of design research (Collins, 1992; Cobb, et al., 2003; Joseph, 2004; Bannan-Ritland, 2003), will allow iterative processes of review and redesign “aimed to improve educational practices through iterative analysis, design, development, and implementation, based on collaboration among researchers and practitioners in real-world settings” (Wang & Hannafin, 2005). This dissertation includes the proposed class structure, the self-paced cataloging module, and writing about the design process. Second, I explore a new online class structure that would include specialized learning tracks and a blend of self-paced

modules for the introductory library science concepts and instructor-led classes for higher-level topics within each learning track. These two parts are preceded and introduced by a larger discussion of professional development challenges in public library systems, description of how the module topic was identified, and how this module, and future ones, will fit into the overall professional development structure of the Nebraska Library Commission.

Librarians enroll in the Public Librarian Certification Program and the Basic Skills classes at different points in their careers and with different education backgrounds. There are librarians with graduate degrees (in fields outside of Library Science) while others' highest educational attainment is a high school degree. Some librarians are familiar with online learning, but others have trouble with basic technology concepts such as attaching or uploading a document through email. At many different levels, there are librarians in these classes who are brand-new to librarianship, some as library staff and some as new library directors in rural areas of the state. Others have been working in libraries for years, but need formal certification as their library works towards accreditation or because their director (or library board) has made librarian certification an employment requirement.

The creation of a preliminary, self-paced, online module along with a new proposed structure for specialized learning tracks will allow students to have a common starting point for their subsequent instructor-led coursework. Currently, each of the Basic Skills classes are offered only once a year and are scheduled for two weeks, with the exception of the Organization of Materials cataloging class which is scheduled for four

weeks. Librarians enroll in these Basic Skills classes whenever they can, but many have to withdraw due to work or personal schedule conflicts during the class. This is especially true during the busy summer reading season. Once they drop a class or if they just don't finish for whatever reason, they have to wait another year before the class is offered again.

"I spoke with my supervisor today about the assignments required, and since it is our Adult Reading Program, there is just not enough time to complete all of the required assignments and all of our programming on top of our day-to-day job requirements."

"Due to limited time to work on the courses as a part-time clerk and not having internet at home, I am unable to devote as much time as I need to take the CEC courses anymore. I have tried my hardest thus far to work on these courses in my free time, but unfortunately, it is too inconvenient at this time. I hope I will be in a position that will allow more time for me to continue my library education."

"I'm going to need to drop out of the upcoming class :(That starts a CRAZY couple of weeks for me and I realistically can't see myself able to successfully complete the class. I registered last year and was unable to do it and I really didn't even have anything else going on, so I can't imagine being able to do it this time. Maybe 3rd time will be the charm!"

"Is there a way a director can take a class that they missed and is due so they may apply for accreditation. It would be great if there was a way for a director to do so if there is only 1 or 2 classes preventing accreditation."

“This course is WONDERFUL, but the content is way too much to get through in a two-week time period! There were several videos that were nearly an hour or more, many, MANY readings, and more extensive assignments than the courses I’ve taken in the past. I can’t point to anything and say, “we should get rid of that” because it’s ALL really good -- but that said, it’s been very difficult to get through everything in the two-week time period. (And my having an unexpected out-of-town funeral that I had to travel for definitely didn’t help.)”

The above quotes were collected from just a few of the many emails and messages that I’ve received from frustrated librarians over the last two years who are working on their continuing education classes as part of the Nebraska Public Librarian Certification program to “acquire, maintain, and develop skills through basic and continuing education” (Nebraska Library Commission, 2017). Additionally, many students don’t drop out but don’t complete the classes because, for unknown reasons, they don’t finish the work or never start. I started asking myself, as the Continuing Education Coordinator, how can I make these classes better? How can they be made more accessible when librarians need them most? Are students really learning from these classes? Are the frustrations really with the content of the classes or with the learning system? What can I do?

Self-paced modules would be beneficial for two key reasons. First, the self-paced modules would be available throughout the year with open online registration. Second, this preliminary module, and the planned development of future self-paced modules, would also free the time and resources of the instructors to lead more advanced

coursework. The current two-week schedule is not long enough to get past many of the most basic concepts of class topics if/when participants do not already understand these contexts. Not surprisingly, when this happens, instructors can also become frustrated.

Highlighting the current heterogeneity of enrollment, some students struggle with simply navigating the online class system in Moodle and they miss the actual content of the class, while other students feel stymied as they seek more advanced discussions. A set of introductory modules would allow students to have time to learn the system at their own pace with more structure, so once they get to the instructor-led classes, they are better prepared to fully participate. In turn, instructors would also be able to focus on building more advanced content or discussions instead of focusing solely on the introductory-level skills. The design and creation of a preliminary self-paced module (described in the following chapters) has been the first step in exploring the creation of specialized learner-centered professional development that would ideally be more immediately relevant to the students' positions in their individual libraries (Boyd, 2012).

Participation and interest in the existing Basic Skills courses has continued to increase each year as enrollment in the certification program also grows. As of May 30, 2018, there were 1,011 individuals enrolled in the Nebraska Public Librarian Certification program. This participant number was up from the 884 participants enrolled in the 2017 financial year. The Basic Skills classes were intended to improve library service in Nebraska by providing training in basic skills of librarianship and are offered for free. From July 1, 2016 to June 30, 2017, twenty Basic Skills classes were provided

with 173 individual participants who registered for one or more classes during the year for a total of 620 enrollments.

In *Table 1.1: Basic Skills Registration Numbers*, the registration numbers from 2011 are compared with 2017 and the first six months of 2018. The increase in registration has forced us to start dividing classes into multiple sections in 2017 as some instructors felt fifty to sixty students in one class was too many. These additional sections were offered at the same time and kept the same content, it was simply adding another instructor to a second duplicate Moodle section. Already in 2018, we're hitting the sixty student registration limit with each class with ten to twenty additional students on the waiting list with no signs of interest in these classes slowing down as enrollment in the certification program is continuing to increase each year.

Table 1.1

Basic Skills Registration Numbers

	2011	2017	2018 (Jan - June)
Collection Management*	53	60	-
Communication*	15	48	86
Customer Service*	48	45	78
Intellectual Freedom & Core Values*	48	59	73
Organization of Materials*	26	59	68
Community & the Library*	32	54	-
Leadership	10	50	-
Library Finance	14	28	44
Library Governance	8	34	65
Library Policy	24	42	-
Library Services to Children & Youth	18	63	-
Library Technology**	-	44	71
Management & Supervision	14	38	-
Programming & Outreach	36	43	-
Readers' Advisory	33	46	67
Reference	32	47	-
Total	414	760	501

*requisite class

**Library Technology was added in 2013

This project was not created in a vacuum; feedback from the instructors, students, librarians, and other Nebraska Library Commission staff has supported the idea of self-paced professional development and more structured specialized learning tracks since I started as the Continuing Education Coordinator in February 2016. Funding for these classes and half of my position comes from federal funding through the Library Services and Technology Act (LSTA) granted from the Institute of Museum and Library Services (IMLS). Throughout 2017, the Nebraska Library Commission has been working on evaluation of the state's 2012-2017 Library Services and Technology Act five-year plan (Dale, 2017) and developing the next five-year plan for 2018-2022 (Wagner, 2017). One of the focal areas of this current plan is "Institutional Capacity" which includes improving the library workforce users' general knowledge and skills (p. 21). The need for self-paced modules came up in both the meeting with the State Advisory Council on Libraries concerning both the evaluation and discussion of the 2018-2022 plan, and in the focus meetings with staff members from the Nebraska Library Commission. One of the goals in that five-year plan states that "Library staff and supporters will have the tools and skills to provide and sustain needed programs and services to their target audiences" (Wagner, 2017, p. 18). As part of this goal, the Nebraska Library Commission "will provide continuing education opportunities for library staff and board members" with the following expected results:

- Improved ability of library boards to govern and advise
- Change in knowledge, skills, and abilities of library staff and board members participating in NLC's continuing education efforts

- Increased confidence of library staff to provide quality library services
- Sustaining the quality of Nebraska's public libraries (p. 15)

There have been additional discussions with the Regional Library Directors and instructors about the idea of specialized learning tracks, such as a set of recommended classes for those librarians in administrative roles (library directors), Youth Services librarians, or cataloging and Technical Services. The 2017 Library Finance class first experimented with this idea with separate discussion topics. Two separate forum prompts were written that asked library directors to focus on their library's overall budget while library staff were asked to focus on finances for a specific program or for a grant that they would like to plan in their library. Feedback collected from the students at the end of that class about the separate discussions was positive, which reinforced the prospective value of specialized professional development offerings.

Nebraska Public Libraries and Public Librarian Certification

In a 2013 report of the Institute of Museum and Library Services, *The State of Small and Rural Libraries in the United States*, a "small library" was defined by "the population size of a library's legal service area" of 25,000 or less. These libraries can then be divided into three subcategories of "10 to 25k," "2.5k to 10k," and "less than 2.5k" (Swan, p. 2). *Table 1.2* illustrates the breakdown of the Nebraska public libraries. According to the data collected for the Nebraska Library Commission's annual public library survey for the 2016-2017 financial year, there are 245 public library systems in Nebraska or 261 individual public libraries. The number of individual public libraries includes the separate branches of both the Omaha Public Libraries system and the

Lincoln City Libraries system, the only two systems in the state with multiple branch locations.

Nebraska libraries with a legal service area population of less than 2,500 comprise the majority of the total number of public libraries with 194 (80%) individual libraries in Nebraska. Of the 146 total full-time librarian positions in these smallest public libraries, only four currently have a Library Science graduate degree from a program accredited by the American Library Association, compared to the ninety-eight FTE librarians employed in medium-to-large libraries where eighty-one have an accredited Master of Library Science degree.

Table 1.2

Legal Service Area Populations and Librarians Employed in Nebraska Public Libraries

Population of Legal Service Area	Medium to Large (>25k)	Small (10k to 25k)	Smaller (2.5k to 10k)	Smallest (<2.5k)
Number of NE library systems (245 total libraries)	9 (25 including branch libraries)	9	33	194
% of Total NE Library Systems (total libraries)	3.67% (10% including branch libraries)	3.67% (3% including branch libraries)	13.46% (13% including branch libraries)	79.18% (74% including branch libraries)
Total Librarians (FTE)	98.13	47.86	96.70	145.78
# of ALA-MLS* Librarians (FTE)	81.25 (67% of total ALA-MLS Librarians)	19.13 (16% of total ALA-MLS Librarians)	16.60 (14% of total ALA-MLS Librarians)	3.80 (3% of total ALA-MLS Librarians)
Total Paid Staff (FTE)	396.59	89.74	143.84	163.02

**Master of Library Science from an American Library Association accredited graduate program*

The number of librarians who may have an undergraduate degree or other certification in Library Science and are currently participating in the Nebraska Public Librarian certification program is not available through the annual statistics, but can be found through reports accessed within the Nebraska Library Commission's Omnibase database and are recorded below in *Table 1.3: Librarians in Certification Program Education*. The numbers listed include everyone enrolled as of May 30, 2017, including

individuals employed in Nebraska libraries either full-time or part-time and Nebraska residents who were not yet employed in a library but were enrolled in the certification program as they sought employment. These numbers do not include librarians with lapsed certification dates before 2017. Job seekers included both those new to librarianship who were trying to find their first library position and those who were returning to the libraries after an extended absence (due to parenthood, retirement, or other employment opportunities, for example). An example of recent job advertisements for a part-time paraprofessional Library Specialist position with Omaha City Libraries with the specific requirement of enrolling in the public librarian certification program is included in *Appendix A*. The Omaha public library system has been particularly focused on the professional development of their employees who constitute the majority of participants from one library/system in the Nebraska Public Librarian Certification program (286) at the time of this study, but more libraries are requiring certification as a part of their employment. Of the 1,011 librarians currently enrolled in the certification program, 688 (68%) needed to complete or had already completed the Basic Skills courses. As the certification program continues to grow each year, and this project remains an LSTA priority over the next five years for the Nebraska Library Commission (Wagner, 2017, p. 17), the majority of learners will need these Basic Skills courses. While the certification program and the Basic Skills classes are not designed to be a replacement for a formal Library Science degree, the classes are intended to help these learners grasp the basic concepts and skills in order to be more confident and

knowledgeable in their individual practices as the work with their library patrons, library boards, and fellow librarians.

Table 1.3

Librarians Enrolled in the Certification Program and Levels

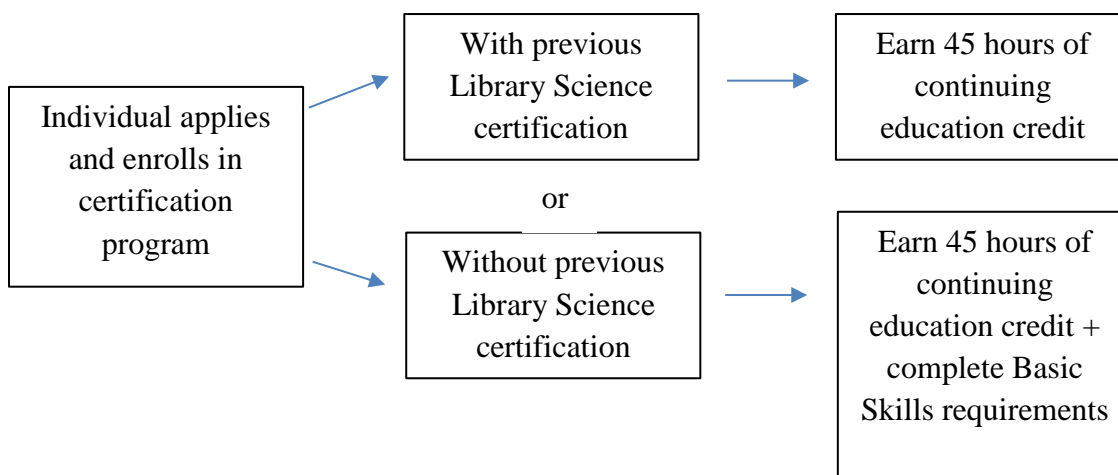
Certification Level	Number of Librarians	Higher Education (from an accredited college or university)	Must Complete Basic Skills Courses
I	202	-	Yes
II	162	Completed at least 60 semester hours or 90 quarter hours	Yes
II-L	36	A.A. Degree or Professional Certificate (in Library Science)	-
III	247	Bachelor's Degree	Yes
III-L	58	Bachelor's Degree (in Library Science)	-
IV	77	Graduate Degree	Yes
IV-L	16	Graduate Degree <u>and</u> Bachelor's, A.A. or Professional Certificate in Library Science	-
V	213	Graduate Degree (ALA accredited Library or Information Science program)	-

Nebraska Public Librarian Certification Program and Basic Skills Coursework

Librarians apply to the Nebraska Public Librarian Certification program online and indicate their library, position, and education level which determines their certification level. Below, in *Figure 1.1*, the certification process is illustrated. All librarians in the certification program need to earn forty-five hours of continuing education during each three-year certification period. These hours can be completed

through in-person or online planned learning activities such as watching library-related webinars, attending conferences, or participating in workshops. The certification levels II-L, III-L, IV-L, and V (*Table 1.3*) indicate that the librarian holds a certificate or degree in Library Science. These librarians do not need to complete any of the Basic Skills classes. They only need to focus on completing forty-five hours of other continuing education activities during their three-year certification period. Librarians who are enrolled at the remaining certification levels (I, II, III, and IV) are those who do not hold a certificate or degree in Library Science and do have to complete the Basic Skills class requirements as part of their forty-five continuing education hours during their first three-year certification period.

Figure 1.1: Certification Program Enrollment



These Basic Skills courses have been delivered online via the Moodle learning management system since January 2011. Six required Basic Skills classes and an additional ten electives are offered once every year and each class lasts two weeks. Organization of Materials, the introductory cataloging class, is the one exception in the

schedule; it lasts four weeks. Required courses are not necessarily more or less advanced than the elective courses. The six required courses include: Collection Management, Community and the Library, Communication, Customer Service, Intellectual Freedom and the Core Values of Librarianship, and Organization of Materials. All students must complete these six courses as part of the Basic Skills requirements, plus an additional seven elective courses though there is no suggested or required order that the courses must be taken. The courses listed as “electives” are simply so that librarians may choose which additional seven courses that they would like to complete (out of the ten elective classes offered each year): Leadership, Library Finance, Library Governance, Library Policy, Library Services to Children and Youth, Library Technology, Management and Supervision, Programming and Outreach, Readers’ Advisory, and Reference. These elective choices are intended to allow students some flexibility in their learning and to take classes most relevant to their individual positions.

If time commitments, other work responsibilities, or personal factors keep an individual from completing any one of the Basic Skills courses, they have to wait an entire year before the class is offered again, according to the current scheduling process. There have been numerous librarians who have reached their recertification date before they were able to complete the Basic Skills requirements. While we are able to work with librarians on extensions, it becomes a frustrating process for the librarian and, in some cases, for their director and their library board. Not meeting the Basic Skills requirements and certification lapses may ultimately affect their library’s eligibility for accreditation

which then may affect their state aid funding and opportunities to apply for certain federal and state grants.

Many of the public librarians enrolled in the Basic Skills classes are located in small or rural parts of Nebraska and may not have much experience with online education or have the support needed to be successful. They may not have taken any formal classes, online or traditional, in years and may not have any background in librarianship. Costs, staffing, and time can impede their professional development, but online learning through self-paced modules should be a more easily accessible tool to help improve library services throughout the state.

The Omaha Public Library system had the largest number of librarians in the certification program with 286 at the time of this study. They were working on their own training materials and had purchased their own learning management system. While the needs of librarians in Omaha (a library system with a service population of 537,709) were much different than for those working at libraries in much smaller cities like Lyman (a single library with a service population of just 328), Omaha's decision to develop their own supplemental basic trainings made clear that the existing classes were not meeting some essential needs for Nebraska librarians. The difficulty in finding continuing education opportunities to meet their librarians' needs, in addition to the issue of year-round immediate access has been echoed in conversations with many librarians. A premise of the design research described here is that the development and adoption of self-paced modules could help to address some of these issues in order to provide a more relevant on-demand professional development curriculum for Nebraska public librarians.

Before the Basic Skills classes were moved online to the Moodle learning management system in 2011, they were offered as intensive in-person workshops throughout the state. Topics covered in these workshops included customer service, communication with library stakeholders, intellectual freedom, cataloging, finances, library policies, technology, outreach, and readers' advisory. The traditional in-person format didn't transfer perfectly into the online setting due to the extensive reading lists and reliance on discussion boards taking the place of the handouts and in-person activities. Online assignments in these courses have been limited to reading articles and posting short responses in discussion boards which seems to have lost some of the connection to real-world practice. The in-person workshops included binders of materials and while there were still a lot of handouts, there were much fewer articles. For example, in the 2002 Organization of Materials binder, there are a number of handout copies of what a MACHine Readable Cataloging (MARC) record looks like and the different fields with activities that asked students to write out their own MARC record (included in *Appendix B*). Activities like this handout gave the students an opportunity to practice identifying the different pieces of a MARC record and to connect those pieces to the physical item, echoing to what they might do in practice. A similar worksheet was included in the original online class, but students were asked to download the worksheet file, complete it, then upload it back to Moodle in order to submit the assignment. Understanding if the worksheet activity was truly helpful or not in the online class was unclear. The technical barriers within the Moodle system have caused students some frustration and many need more support early on in these Basic Skills online classes

(Francis, 2013). For example, one student printed out the worksheet, completed it by hand, then submitted her assignment by fax, simply because she was more comfortable doing so over using Moodle and Word.

Making the transition to online classes in 2011 was a great undertaking by the previous Continuing Education Coordinator and now that librarians in the certification program expect more online continuing education opportunities and know that the Basic Skills classes are only offered online, we have the opportunity with this research in practice, to optimize those continuing education offerings.

Working closely with several of the instructors, since I was hired in February 2016, we began redesigning several of the Basic Skills courses. The Library Policy class, for example, requires students to work through the process of writing a new policy or rewriting an existing policy to be used in their library. A new final assignment in the latest Readers' Advisory course asks students to film themselves giving a short booktalk, as they might be asked to do in their library, and then to post the video of their booktalk on YouTube to share with the instructor and classmates. Concurrent with the redesign of coursework, a new evaluation infrastructure has also begun to be introduced. Previously, there hasn't yet been much evaluation incorporated into the classes. Since I came to my position, short course evaluations have been added into each course. These evaluations ask if the course was what the student expected, what they liked best, what they liked least, what they would like to have covered, and how long they spent each day on the course. While some of the feedback generated from these questions has been helpful, the

first forays have not captured the students' actual learning progress through these classes. Evaluation design remains part of the larger design experiment.

Research Project Limitations

Several limitations to this dissertation study have been considered. First, this research project focused on the design of a preliminary self-paced learning module for cataloging. During the design process, I've outlined additional modules and how the structure of the instructor-led courses within specialized learning tracks could look, but this study was limited to the development of this first introductory cataloging module. Second, limiting this study to the design of the module largely excludes data collection from students. This introductory module was completed in March 2018. Testing of this self-paced module with students began in April, and initial feedback from instructors and other Nebraska Library Commission staff members was collected, but learning and impact data for the final dissertation is limited. Of course, that is more a limitation of the dissertation than of the larger effort of which the dissertation is only a piece. After this dissertation was completed and accepted, iterative (re)designing, implementing, and evaluating librarian training remained a central premise of my job description. Additional study, testing, and edits to the modules and learning tracks continued post dissertation, as I continue to evaluate student completion, student and instructor feedback, and input from other Nebraska Library Commission staff and other state Continuing Education Coordinators.

Definition of Terms

1. Basic Skills - A set of online asynchronous courses offered to Nebraska residents or those employed in a Nebraska library that focus on foundational skills of librarianship. Since 2011, these courses are delivered via the Moodle learning management system and are offered by the Nebraska Library Commission. Instructors include the regional library system directors and members of the Nebraska Library Commission staff.
2. Bibliostat - An in-house database used and maintained by staff members of the Nebraska Library Commission. This database includes information about Nebraska libraries, Nebraska librarians, and Nebraska library board members collected through regular updates and annual statistics gathered from library directors and staff.
3. Continuing Education (CE) - Participation in planned learning experiences and activities which are designed to increase library-related knowledge by attending either in-person or online, such as webinars, conferences, or lectures
4. Continuing Education (CE) Coordinator - Please see *Appendix C* for the full job description.
5. Library Accreditation - By incorporating community-based guidelines, library accreditation encourages improved library services throughout Nebraska by establishing standards of services and benchmarks that public libraries must meet. Accreditation is based on a points system, with twelve minimum guidelines that the libraries must meet in addition to submitting a strategic plan every three years.

Accredited libraries are eligible for state aid funding from the Nebraska Library Commission, as well as additional yearly grant opportunities.

6. Library Board (or Trustees) - A group of elected or appointed community members responsible for the governing or advising of a public library
7. MARC - MACHine Readable Cataloging record
8. Moodle - An online open source learning management system used by the Nebraska Library Commission to offer Basic Skills classes, as well as several courses for databases and for the cataloging certification program
9. NCampus - The Nebraska Library Commission's Moodle website which is used for the Basic Skills classes, the online cataloging certificate classes, and several database training classes
10. Nebraska Library Commission (NLC) - A state agency that "is responsible for the statewide promotion, development and coordination of library services"
(Nebraska Library Commission, n.d.) Services available to Nebraska libraries and librarians include information technology, planning and statistics, reference and information, government information, technology (including databases), Talking Book and Braille, continuing education, librarian and board certification, and library accreditation
11. Online learning – Courses offered via the internet to distance students which allows students to learn on their own time without traveling or attending synchronous in-person sessions

12. Public Librarian Certification – To improve library service throughout the state and encourage public librarians to continue learning and expanding their skills, the certification program requires forty-five continuing education hours every three years, certification of library directors and staff members factor into public library accreditation status
13. Regional library systems – Four nonprofits in Nebraska that are led by a Regional Director, governed by a board, and work closely with the Nebraska Library Commission to provide library services to all libraries located in the counties of each specific region (Western, Central Plains, Three Rivers, and Southeast)
14. Rural public library/librarian – A library or a library system with a legal service population of less than 25,000
15. Urban public library/librarian – A library or a library system with a legal service population of 25,000 or more

CHAPTER 2 - REVIEW OF THE LITERATURE

Learning is a series of complex interactions between the learner, the content to be learned, and how the class is presented (whether online or in-person). Malcolm Knowles (1950), considered to be the first authority on adult learning throughout academic literature, stated of learning that the “teacher guides the process on the basis of his understanding of both student and materials so as to create learning experiences that will be meaningful to the student” (p. 31). In order to better understand and assess the needs of adult learners in a continuing education context utilizing online self-paced modules via the Moodle learning management system, theories of adult learning and constructivism are first explored. Questions for this research initially focused on 1) how do adults, in their role as public librarians in Nebraska, learn or increase their professional knowledge and 2) how can learning theories and principles be applied more directly to online learning practices within this context. In this section, I review literature focusing on adult learning theories and constructivist learning principles.

The discussion in this chapter is organized into the following sections: (1) theoretical framework, (2) online professional development, (3) design and delivery of online learning experiences, and (4) professional development of librarians and continuing education in Technical Services. This includes an adaptation of the CPED guiding principles to apply them to both employee professional development and librarianship as a vehicle of education.

Theoretical Framework

The learners who are participating in the Nebraska Public Librarian certification program are adults who are currently employed in a Nebraska public library or are Nebraska residents interested in librarianship. Those who enroll in the Basic Skills classes are these learners enrolled in the certification program who do not have a professional certificate or degree in Library Science. These classes are intended to be immediately relevant to and connect with varying levels of library experiences and knowledge in order to improve the learner's current practice as a librarian. Self-paced modules will address the heterogeneity of experiences and education, as students more familiar with these introductory concepts will move more quickly through the materials, while other students are able to take their time. The learners may be employed in a full-time or part-time position in various departments within their libraries, or currently looking for a library position, but each learner is an active participant in the context of library education. The advanced instructor-led coursework then goes beyond the basics, to connect more specifically with librarians' roles within their practice and to explore new issues that are important or timely to the larger librarian profession. Malcolm Knowles' theories and assumptions of adult learners are examined then are followed by critiques and alternative perspectives on adult learning. With the understanding of learning as an internal process, constructivism and experiential learning are two key theoretical perspectives, especially studies that incorporate these perspectives into online learning settings. A brief discussion of the connectivism and why it was not used as a primary approach for this problem of practice follows.

Adult Learning and Self Direction

Malcolm Knowles, who researched and wrote extensively about adult learning, differentiated between pedagogy and andragogy (or adult learning) related to assumptions of dependency. (Pedagogy implies a teacher; in contrast andragogy can be self-directed.) A student does not automatically become an “adult learner” once they reach a certain age or pass a particular grade level. In his 1977 article, “Adult Learning Processes,” Knowles writes that “the andragogue has a value system that places self-directiveness on a much higher level than dependency and so will do everything one can to help a learner become increasingly self-directive in his or her learning” (p. 207). Thinking about adult learning still today as a continuum of self-direction (*Figure 2.1*) helped guide this research in order to encourage public librarians to take on an increasingly active role over their continuing education in an online environment and move towards the goal of self-directed learning.

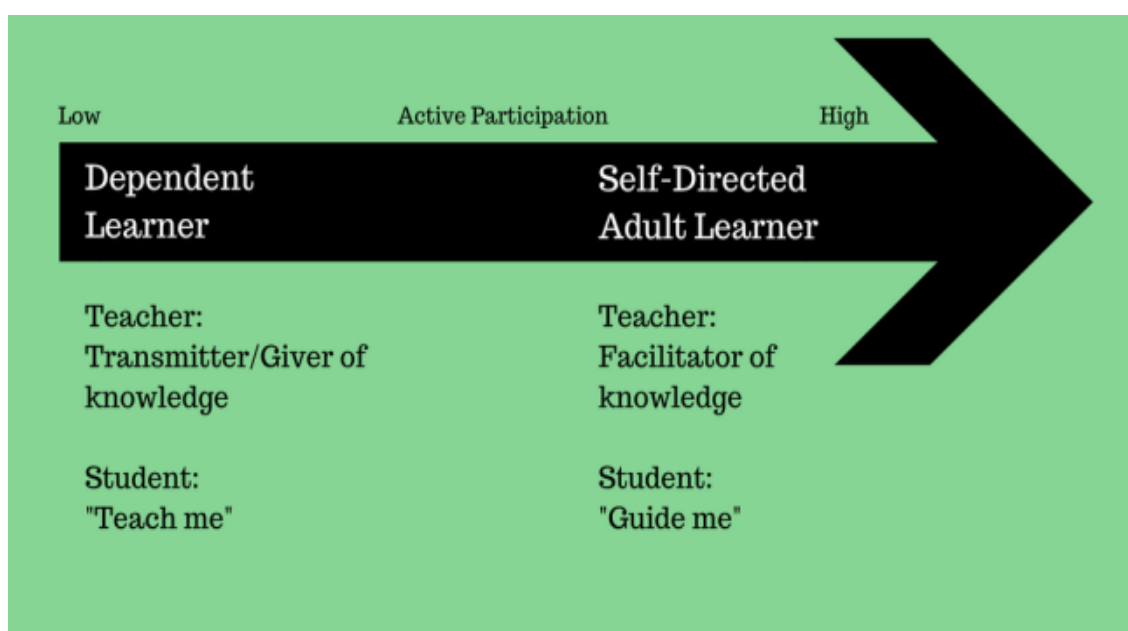


Figure 2.1: Dependent Learner to Self-Directed Adult Learner

Beginning as a dependent learner, a student has little or no active participation in the planning or direction of his/her learning. Without prior experience or knowledge to connect with, the teacher's role is one of "transmitter" or giver of information, responsible for building context and experiences for students. As students move towards self-directed learning, teachers increasingly take on the role of "facilitator" as they step back and guide the learner to take more ownership of their learning. As an active participant in their own learning, adult learners need the content to be immediately applicable to their practice as they connect new ideas with prior knowledge and experiences that they bring with them into any educational setting. These students need to be able to understand why they are learning the materials or skills being taught and how that information can be used as soon they leave the classroom.

While Knowles' theories attempt to make adult learning distinct from the learning and teaching of children, Sharan Merriam (2001) states that "Some adults are highly dependent on a teacher for structure, while some children are independent, self-directed learners" (p. 5). This seems to be especially true for adult learners who are completely new to online learning and dependent on the instructor for step-by-step instructions. As they become more familiar with the systems and the digital tools being used, learners can then become more independent and ready to take an increasing control of their learning.

Assumptions and Principles of Adult Learning

In 1980, Knowles first published four assumptions of adult learners:

1. As a person matures, his or her self-concept moves from that of a dependent personality toward one of a self-directing human being.

2. An adult accumulates a growing reservoir of experience, which is a rich resource for learning.
3. The readiness of an adult to learn is closely related to the developmental tasks of his or her social role.
4. There is a change in time perspective as people mature – from future application of knowledge to immediacy of application. Thus, an adult is more problem centered than subject centered in learning.

Two additional assumptions were later published:

1. The most present motivations are internal rather than external.
2. Adults need to know why they need to learn something

(Merriam, et. al., 2012, p. 84)

Taking these assumptions into consideration, a simple model for adult learning is illustrated below. Adult learners enter an educational activity (a workshop or webinar, for example) with different expectation, experiences, and knowledge, they are motivated to learn something that will be immediately applicable to their life or to their practice, and they are ready to learn and apply the new knowledge. The instructor's role then, as facilitator, is to take this prior experience into consideration and frame the content into a learning experience where the application and relevance to the learner is clear.

Continuing this process then moves the adult learners closer towards self-directed learning as they begin to recognize their own learning needs, seek out additional resources, and take charge of their professional learning.

Much debate has surrounded Malcolm Knowles' writings on adult learning as questions arose if these assumptions were truly a theory of adult learning, a model for learning, a model for instruction, or something else. Holton III, Swanson, and Naquin (2001) suggest this may be due in part as Knowles "refined his thinking" and published additional assumptions over the years (p. 120). Anne Hartree (1984) questioned these assumptions, asking if they are "to be read as descriptive of the adult learner, or would it be more accurate to see them as prescriptive, statements about what the adult learner should be like" (p. 205). Stephen Brookfield (1986) suggested that "the concept should be treated exactly for what Knowles claims it to be – a set of assumptions" (p. 91), noting that while the idea of "self-directedness" is absent in many other cultures, it should remain as a goal for educators (p. 95). Self-directed learning allows students to be active and engaged with their own learning processes as the facilitator guides the learner through relevant content. He wrote though that "facilitating learning is a transactional encounter" (p. 98) between the learner and the instructor. Holton III et al. (2001) follows this idea of a transactional model of adult learning stating that "Adult learning occurs in many settings for many different reasons" including adult education, human resource development, and higher education (p. 125).

Instructors facilitating learning should take the learner's needs and preferences into consideration, but Brookfield warns that "it is just as misguided for a facilitator to completely repress his or her own ideas concerning worthwhile curricula or effective methods and to allow learners complete control over these" (p. 97). Challenging preconceived notions or presenting challenging situations is an important part of learning

and necessary to the process. Especially with professional development and introductory-level knowledge like the Basic Skills classes, the instructors need to make decisions about the content in order to ensure certain competencies are being met, such as those published by the American Library Association.

The librarians who are enrolled in the certification program or any of the Basic Skills classes should expect that the content will be immediately relevant to their practice in their library, whether they are learning how to more effectively manage their library finances, how to write library policies, or how to improve their services for community members through better planned programming, information organization, or readers' advisory services. The existing Basic Skills classes heavily rely on short discussion forum activities. Librarians can post about what's been done in their libraries, what's gone well or has gone badly, and what they're planning on doing to move forward (with a new collection or program), then get feedback from the rest of the group. Some students, who are at a higher level of self-directed learning, take a more active role in discussions and express a desire to learn more and ask questions while other, more dependent, students may post short one-sentence replies and express frustration (to me) about the process.

Keeping Knowles' assumptions in mind, but focusing on the role of experience and the importance of delivering relevant and applicable content, I approached my research through a constructivist perspective.

Constructivism: Learning as a Process

Constructivism is defined as “a collection of perspectives all of which share the common assumption that learning is how people make sense of their experience” (Merriam & Bierema, 2013, p. 36). Learning is a process through which the learners are active and engaged participants. Piaget “stressed the importance of the child as an active organism as he or she progressed in cognitive development” (Tracy & Morrow, 2012, p. 91). Through the constructivist learning process, new knowledge is integrated with a student’s existing knowledge which “can only occur when the learner is actively engaged in the learning process” (Tracey & Morrow, 2012, p. 58). Learning from a constructivist viewpoint is a continuous internal process that can’t be observed. Constructivist learning works well for adult learners as they move towards that goal of self-directed learning.

Lev Vygotsky’s theory of social constructivism believes that “children learn as a result of their social interactions with others” (Tracy & Morrow, 2012, p. 127). Learning occurs through interactions with others, especially those people around them who they interact with often through “sign systems” or “language, writing, and counting systems.” Vygotsky’s zone of proximal development (*Figure 2.2*) is the idea that development occurs when learning tasks are at a level in which students can be successful with support.

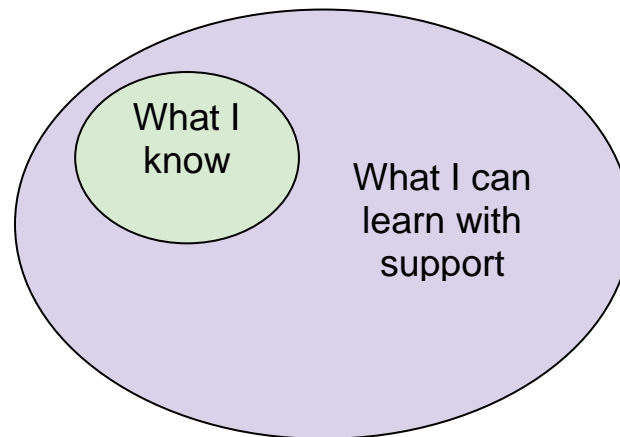


Figure 2.2: Zone of Proximal Development

As John Dewey (1933) states “the best thinking occurs when the easy and the difficult are duly proportioned to each other...Too much that is easy gives no ground for inquiry; too much that is hard renders inquiry hopeless” (p. 290). Learning doesn’t occur if the task is too easy and doesn’t require effort from the learner, but if the task is too challenging, learners struggle and won’t learn. Learning occurs in that space in between. Activities which include collaborative problem solving among the learners themselves in group discussions or between the learners and the instructor allow interaction that provide support when needed and can challenge the learner’s thinking.

Incorporating Constructivist Principles into Online Learning

Learning online offers flexibility to adult learners as they are able to access the content at any time and from any place, as well as offering a variety of learning tools such as discussion boards, interactive quizzes, or videos. Examining andragogy in the context of online/distance education “for enhancing the teaching and learning environments”, Hsiu-Mei Huang (2002) wrote about the challenges and issues of utilizing a constructivist approach for online learning. These challenges include the dependence on

technology itself and challenges with the learners. As distance learning must be delivered electronically, students may feel isolated from fellow students and from the instructor in this kind of learning environment. Even with conferencing technologies, Huang states that “It loses some humanity” (p. 31) as students lose the face-to-face discussion and immediate feedback of a traditional classroom while seeing only what is being displayed on screen. Conferencing technology relies on having and using webcams, microphones, and instant messaging which may be challenging for some learners. At the same time, learners who are comfortable with conferencing software and/or for those who don’t speak up or chat for some other reason, it can become difficult for the instructor to tell if they need help or if they are engaged with the content at all.

As adult learners move towards self-direction of their learning, the instructor must act as facilitator, in conjunction with technology (Huang, 2002, p. 31), while also encouraging authentic, learner-centered instruction that connects with each individual’s prior experience. Shieh Ruey (2010) recommends a facilitation model for constructivist-based online learning where the facilitator (instructor) acts as mentor, “focusing on guiding learners’ self-directed, high-quality learning” (p. 717). Ruey suggests student learning contracts which help learners articulate their learning needs and objectives which the instructor then helps the student achieve through critical thinking, reflection activities, and meaningful feedback. Personalized learning contracts may be beneficial, but for the two-week limitation of Basic Skills courses, they may not be effective. However, this concept may connect with the previous discussions with Nebraska Library Commission staff and the Regional Library Directors about the idea of the specialized

learning tracks. Having a set of recommended classes for those librarians in administrative roles (such as library directors) or having separate assignments and discussion groups would provide more relevant content for these specific professional roles or groups. The 2017 Library Finance class experimented with this idea with separate discussion topics. Directors were asked to focus on their library's overall budget while other learners were asked to focus on finances for a program or a grant that they would like to plan or have planned. Feedback collected from the students at the end of this class about the separate discussions was positive.

As more classes move towards online offerings, the transition from in-person, synchronous structure is not always simple. Catherine Lalonde (2011) describes an in-person graduate class which met weekly on a university campus that transitioned to an online class in education utilizing a constructivist approach. Lalonde's work is notable as the transition was conducted with clear intention and careful thought, focusing on "flexibility, constructivist approaches to teaching and learning, and communities of engagement" (p. 410). Lalonde was attentive to the fact that not all previous assignments which may work well when students are able to meet together don't translate to the online format. Instead of keeping a major group presentation in the course, Lalonde asked online students to complete an assignment which "each student using a theory to analyze a particular critical education issue with the help of teacher-oriented and student-oriented resources...to build links to how said student would help his or her future students better understand this theoretically analyzed topic" (p. 412). The students' reflection papers would then be posted to gather constructive feedback from the other students in an online

forum. Utilizing a constructivist approach, the students connect theory with their practice as teachers, analyze how they may use the information in their future work, and gain valuable interaction as they practice critically evaluating each other's work as well as benefiting from the increased number of different perspectives (p. 413). For online adult learners, the connection between experience, reflection, and relevance remains key.

When the Nebraska Basic Skills classes were moved online in 2011, the same format of discussion boards and a list of assigned readings were created for every class. There are online discussion forums with questions, but asking students to simply describe their current library collections, for example, doesn't necessarily encourage the kind of more meaningful interactions that Lalonde has described. In addition, responses can seem shallow as learners simply post the minimum to fulfill the assignment requirements. While I continue to work with instructors on redesigning some of the assignments, this is an opportunity as the Continuing Education Coordinator to optimize the learning content. The implementation of self-paced modules as a starting point will allow the basic or "shallow" information to be moved, saving time and resources so that the instructor can then focus on building the more interactive and in-depth discussions in subsequent instructor-led advanced classes.

The Role of Experience in Adult Learning

Daniel Pratt (1993) stated that adult learning "appears to rest on two implicit principles...knowledge is assumed to be actively constructed by the learner" and that "learning is an interactive process of interpretation, integration, and transformation of

one's experiential world" (p. 17). Examining the theory of experiential learning as part of the constructivist perspective is another important piece to this problem of practice.

Based on the work of Dewey, Lewin, and Piaget, David Kolb (1984) wrote that "learning is the process whereby knowledge is created through the transformation of experience" (p. 38). This process can be illustrated below through Kolb's experiential learning cycle which is made up of four stages:

1. concrete experience
2. reflection
3. abstract conceptualization
4. experimentation

The concrete experience acts "as a reference point with textures, feelings, meanings, and emotional impulses" (Baasanjav, 2013, p. 576). Learners then reflect on that experience in order to develop an initial theory or abstract conceptualization. The learner then uses this concept to solve a problem or experiment. As new information or experiences are gained, the cycle continues, requiring the student to continuously reflect and build new meaning.

Pratt, focusing on Knowles' research of adult learners, stated that learning "is the construction of meaning through experience" (p. 16). Looking at incorporating experiential learning principles into learning online, Carver, King, Hannum, and Fowler (2007) present a model of experiential e-learning that they believe addresses some of the weaknesses of online learning. The authors suggest a taxonomy or "continuum from

simple content sharing and recall of prior experience at one end to direct experience/action learning at the other end” (p. 249).

Learners are “passive” at the lower levels, taking a more active role as courses incorporate more experiential learning towards the higher levels of this continuum (p. 250), similar to Knowles’ learning continuum described above. Currently, the Basic Skills classes could be considered within the “Type 2” experiential e-learning as much of the assignments depend on responding to discussion board prompts and commenting on a required number of classmates’ posts. This model emphasizes the professional role of learners by utilizing real-world work scenarios or challenges as the basis of the learning activities. As experiences and student interactions are incorporated more into the course design and activity planning, the more effective online learning becomes as it becomes more learner-centered, increases the learner’s sense of agency, and increases competence through relevant practice of knowledge and skills. Undrahbuyan Baasanjav’s 2013 case study explored the integration of experiential learning principles into an online digital media undergraduate course based on the work of Carver, et al. (2007). The course was designed to encourage the students “to reflect upon and analyze their digital media experiences” (2013, p. 586) through discussion boards and assignment topics chosen by the students. While this study was a semester and aimed at undergraduate students, some of the principles may be applied to the online Basic Skills classes as instructor-led course projects are redesigned to relate more closely to the public librarian’s work and specific projects. For example, in several of the classes, such as Readers’ Advisory, the

instructors have altered the final project based on a real work challenge, such as recording a booktalk or writing a new library policy.

Connectivism

Connectivism, a learning theory advocated by George Siemens (2005) and Stephen Downes (2010), seeks to explain the role of the internet and technology in education. The Nebraska Public Librarian certification program and the Basic Skills courses are more formal continuing education activities and I don't believe this theory to be optimal for this particular problem of practice. However, I felt it important to briefly discuss because this theory as it does focus on self-directed learning through communities of practice or networked learning and as it appears throughout the literature in regards to online professional education (Bond, 2013; Goldie, 2016; Guder, 2010; Neubauer, et. al, 2018; Transue, 2013).

Due to the multitude of existing technology tools, students have the ability to seek and share information across vast online networks. Siemens (2005) defines connectivist learning as “a process that occurs within nebulous environments of shifting core elements – not entirely under the control of the individual” (para. 23). As learners seek information through an ever expanding number of diverse formats, they build personal learning networks. Information is accessed from expert or specialized resources (or nodes) which the learner connects to new ideas or practice. Part of this learning also requires students to distinguish between the important and unimportant information, making connections between sources which then facilitates continual learning.

Siemens (2005) describes the importance of “information flow” within an organization, stating that “Creating, preserving, and utilizing information flow should be a key organizational activity” (para. 26). The cyclical learning process suggests that learners have their personal networks which are connected to others and may be changed or expanded as new information is sought. Downes (2010) states that “we need to see the educational system itself as adaptive rather than prescriptive” (p. 28).

Emerging technologies like social networks allow educational content to become “decentralized” and learning to become increasingly self-managed. Learners seek out information that they need or want. This leads to increasing connections and discoveries which they can then take back and share within their personal networks. The newly updated network is then shared with others, creating increasingly larger communities of self-directed learners.

Downes even describes using Moodle as a course management system for discussion boards for his online Connectivism course. However, he and his team of instructors went further, creating a tool that collected feeds and links from “170 blogs and websites” (p. 30) which were then sent out daily to student along with more links to separate learning events, such as webinars or Skype discussions. The students were told to “select and sample course content” (p. 30). Evaluation was based on learners’ interactions and participation within the course.

Considering the emphasis on online learning and information flow, the connectivist learning theory initially appeared to match well with my problem of practice. Libraries are built around the idea of open information and the Association of College

and Research Libraries' framework is based on the ideas of creating, sharing, and finding information. However, I didn't approach this problem of practice through the connectivist lens for several reasons. First, while Moodle is the current course management system for Basic Skills, the course structure does not mirror that of Downes'. The Basic Skills, and the requirements for the Nebraska Public Library certification program, are structured by separate topics of librarianship. While learners may seek out additional information and added resources that are available within the course, the learning is not designed for an open exploration of materials. There isn't an encouragement to "sample" course content. Students engage in lessons that will ideally build on one another within each class, rather than an open discovery network. In addition, the motivation for taking and completing these classes is not based entirely on curiosity or discovery. Motivation comes first from becoming certified which must be done by library directors and by a certain number of staff within a public library in order for that library to be accredited. Accreditation may affect federal or grant money available to them. Motivation may also come from Library Directors or Library Boards encouraging or requiring their library staff to enroll in the certification program. While there are many librarians who are excited to participate in the certification program for numerous reasons, including the opportunity to enhance their own learning or skills, the Basic Skills courses are part of a larger certification requirement.

While the connectivist approach may be appropriate for other continuing education opportunities, such as librarians who want to explore more information about the latest library trend or new technology tool, I don't feel it's the right approach in

focusing on this specific problem of practice or these self-paced modules and the advanced instructor-led classes. The Basic Skills classes are meant to focus on public librarians in need of foundation-level knowledge in librarianship. In order to be a connectivist learner, an internal motivation and a familiarity with online learning need to exist that I'm not certain most learners in the Basic Skills classes have yet. These learners may eventually reach that point of self-directed learning where they are confident enough to explore online continuing education opportunities more freely without an instructor/facilitator, but for this current research practice study, I believe it's important to focus on a more structured and guided approach for learners.

Online Professional Development

Teresa Dalston and Philip Turner (2011) proposed "an evaluation framework for public library staff online training courses" (p. 13), based on their public library system's employee policies and competencies, which includes both long- and short-term knowledge acquisition and efficacy, as well as "changes in on-the-job performance that can be attributed to the training" (p. 14). The study evaluated the same online utilizing four different implementation strategies of differing instructional interventions in order to compare the data from each level from a constructivist approach. A pretest, posttest, and a delayed posttest were all administered through an online survey. The study found that facilitated online learning had the greatest short- and long-term knowledge improvement, though with a complex topic such as dealing with difficult patrons, they noted a decrease in long-term self-efficacy in the respondents. They note that more research is needed on integrating this training into improved on-the-job performance. The current Basic Skills

classes are all facilitated by an instructor, though the instructor participation occurs completely online through forum posts or emails to the students. This format seems to align more closely with one of Dalston and Turner's levels (2A) which "utilized an online facilitator with explicitly defined duties and communication tools within the courseware...the facilitator introduces the lesson, provides examples, leads asynchronous discussion on course topics, and contacts learners to ensure they are making satisfactory progress" (p. 16). The research found this level of facilitation, along with the online curriculum, did appear to lead to long-term knowledge acquisition based on the delayed posttest results.

A study by Peeters, et. al (2014) of the relationship between formal learning experiences, like classes, and informal learning, such as conversations among peers, found that participating in formal learning led adult learners to increasingly seek out additional self-directed learning opportunities. Informal learning was found also to lead to better understanding through increased explanations as multiple people had the opportunity to discuss from differing perspectives (p. 188). While Peeters' study focused on in-person classes, the idea may be echoed in discussion boards where adult learners have the opportunity to talk with each other. In the Basic Skills classes, discussion boards have been the primary discussion tool for our learners. Part of each forum assignment is to make one original "substantive" post and reply to at least two others. Within the assignment description, learners are encouraged to discuss and some instructors post a summary of ideas, but this kind of participation is more formal and not always productive. In the 2017 Community and the Library class, four students didn't technically

complete the class as they didn't post enough replies. After discussion with instructor, the students were allowed to go back and add comments so they could pass and wouldn't have to wait an entire year to retake the course, but adding short discussions after the class has already ended isn't useful for the class as a whole. The discussions then becomes busy work or "superficial", rather than encouraging conversation or learning (Sandars & Langlois, 2006).

The digital classroom and the constantly changing nature of technology tools that are available in both distance education and in libraries have altered the approaches to instruction for online instructors, as well as for adult learners. Online education allows learners to connect with instructors and other classmates in addition to accessing their classes any time and from anywhere while the information can be distributed immediately and updated continuously. A survey of teachers found that online communities to be a meaningful professional development opportunity as they allowed flexibility of time and an extended professional network as they connected with other professionals and could discuss issues that were immediately relevant to their work (Duncan-Howell, 2010).

An increasing number of Nebraska's continuing education activities are being offered virtually, such as the Nebraska Library Commission's "Big Talk from Small Libraries" which is an all-day digital conference that is streamed online with recorded sessions posted soon after with 470 attendees last year. For the Nebraska Public Librarian certification program, this means more librarians can enroll and participate throughout

the year than were able to do so when the continuing education activities were offered primarily as in-person workshops, including the Basic Skills classes.

A 2010 survey of 328 members of three national professional associations, found that respondents preferred the face-to-face format for continuing education activities. The authors suggested that online learning was not as engaging as face-to-face or at least was not perceived to be as engaging by the participants (Lynn, et al.). This echoed Connie Haley, in 2008, who stated communication, networking, and technology as a barrier for reasons to use face-to-face training while online training offers flexibility, time savings, lower costs, and convenience (p. 37). Another later study of synchronous online webinars concerned about the loss of in-person interaction between participants and instructors found that the learners didn't feel like it was a disadvantage as they were still able to chat through the conferencing software through messages or by speaking through a webcam/microphone (Yates, 2014). This is supported by the research of Huang and Hsiao (2012) who examined asynchronous and synchronous communication in online learning. The delayed feedback of emails and discussion boards may lead to feelings of isolation between learners and instructors while instant messaging or conferencing software can bring back that more immediate feedback and an aspect of social collaboration (Hendrix, 2017).

Design and Delivery of Online Learning Experiences

In 1983, Malcolm Knowles wrote an article entitled "Malcolm Knowles Finds a Worm in His Apple" in which he describes "feeling increasingly archaic" (p. 12) as personal computers were being used more regularly in both classrooms and professional

settings. Deciding to buy an Apple computer, he describes his increasing frustration with trying to learn how to use it, noting in a diary how the manual “violates many principles of adult learning” through memorization of commands and uninteresting computer games. Knowles makes the interesting point that while machines may be ‘user friendly,’ the instruction materials are not learner-centered (p. 15). As Huang (2002) states, “appropriate types of technology can really assist learners to improve their achievement” (p. 31). The design of meaningful learning experiences for adult learners should be carefully considered, whether we are teaching them how to use specific technology tools, such as Moodle or email, or using that technology in order to deliver continuing education content. Similarly, James Gee (2005) writes of education and the notion of video game manuals as learners struggle with large amounts of information that is “out of contexts of application” (p. 11). Reading these manuals before playing the game (or understanding the larger context) isn’t helpful as “All one gets is lots of words that are confusing, have only quite general or vague meanings, and are quickly forgotten.” Designing online coursework, this overload of text or reading can be a barrier for learners as they don’t make the connection to their real-world practice. Those students who do enroll in these Basic Skills classes, for example, with previous experience working in libraries may find the information (or manuals) to be helpful resources as they are already familiar with the “game-related words” or concepts. Students who lack this context need the additional support to build that foundation with the information spread out over several “levels” or, in this research, self-paced modules.

As Margaret Britt (2015) writes about online learning opportunities, early “e-learning was more or less dressed up traditional methods of delivery” utilizing strategies such as narrated PowerPoint slides to “provide a simplistic approach to delivery of e-learning without little consideration of learning effectiveness and engagement” (p. 401). This still seems to be true in many cases of online webinars where a slide presentation appears on screen while the presenter narrates. The Organization of Materials Basic Skills online class originally included recorded lectures from the previous Continuing Education Coordinator and the previous Cataloging Librarian which were paired with a series of PowerPoint slides. The affordances of technology and online learning would enable instructors to keep a similar format, but encourage greater participation and engagement. For example, presentation tools that allow on-screen polls or quizzes that ask learners to interact or “break-out” rooms that would encourage participants to chat in smaller groups periodically about the content. The Nebraska Library Commission does have a license for GotoMeeting software which is primarily used for NCompass Live (Nebraska Library Commission, 2018), which is a weekly webinar series with guests discussing a variety of library topics and issues. This popular webinar series, and other similar ones, have exposed many Nebraska librarians to this kind of tool, as well as Nebraska Library Commission providing access to Nebraska Librarians to WebJunction, an online learning service (Mason, 2009; Schadt, 2016). Similar to finding the right tool for the content, it’s important to avoid incorporating too much. Miller (2014) argues that technological multitasking with different apps, devices, or online environments/learning management systems can be detrimental to online learning and teaching. Paul Clayton

Campbell (2014) also warns of new technology in library instruction that “without a thoughtful process to effectively incorporate it into an instructional program, could have a more negative effect than positive when instructional design thinking is left out of the process” (p. 140). Students trying to learn or use multiple technologies in addition to learning the course content can become overwhelmed. Developing advanced instructor-led courses alongside the self-paced modules would then incorporate some of these more interactive features in a structured, supportive, and thoughtful way.

In designing and developing a new instructional approach, Gagné, Wager, Golas, & Keller (2005) write that “A teacher or trainer using instructional design principles to design a lesson may need only a simple model for lesson planning” (p. 13). One of the most common flexible instructional design models is ADDIE (Analysis, Design, Develop, Implementation, and Evaluation). While most of the library science literature that focuses on utilizing ADDIE to develop instruction centers on working with undergraduate or graduate students, lessons can be learned from their research as well as looking to other professional literature outside of libraries. As universities increase online programs and distance education opportunities, academic librarians have turned to developing an increasing number of self-directed web-based learning tools (Swanson, 2006). One such project from Julie Ladell-Thomas (2012) describes the process of developing a self-directed module to learn more of the research and literature review process. Their basic steps through the ADDIE model included analyzing “various considerations, including the audience, the instructional goals, the delivery options, and any constraints...design phase involved determining strategies to achieve instructional

objectives...next step involved actually developing the content and creating multimedia components, and finally, the project could be implemented and evaluated” (p. 382).

Following a similar process for an evidence-based medical course taught by collaborating librarians and physicians, Sarah Reinbold (2013) adds that “Although the ADDIE model phases are written in a linear order, it is more iterative and cyclical” (p. 246) suggesting that this instructional design model is flexible enough for continual redesign and testing, rather than limiting instructors and designers to strict steps that must be followed and can be utilized for both short and long-term design projects to more effectively incorporate technology with regard to library instruction (Campbell, 2014). Following this ADDIE model and the concept of developing a prototype module allowed us to critically examine the Basic Skills classes in their current state and the Moodle system itself. The design and implementation/testing of this first module offered initial lessons and feedback from the learners and the instructor necessary to continued assessment and future developments and improvements.

Professional Development of Librarians and Technical Services

Looking more closely at professional development of librarians, specifically in Technical Services for the development of this first cataloging module, continuing education recommendations from the First Congress on Professional Education, sponsored by the American Library Association focused on coordinated approaches to professional development and identifying “needs and requirements of specific levels of personnel” (Varlejs, 2000, p. 143) in order to develop education programs. As Rebecca Blakiston (2011) states “Librarians of any specialty require continual training and

development in order to be effective in their shifting roles” (p. 729). Professional development opportunities for librarians through national and state organizations, such as the American Library Association, the Nebraska Library Association, and the Mountain Plains Library Association, offer continuing education through conferences and committee participation available to librarians. State agencies, like the Nebraska Library Commissions, and the four regional library systems in Nebraska are able to offer localized opportunities such as summer reading workshops around the state or online trainings such as the Basic Skills classes and NCompass Live weekly webinars. Continuing Education Coordinator (or similar) staff positions exist in every state with federal funding from the Institute of Museum and Library Sciences as professional development continues to be a priority for librarians though time, money, and necessary support often prove to be barriers for many (Hull, 2009; Pinkston, 2009; Terrill, 2014). Librarians rely on free online continuing education in many cases, as they can find it. Lori J. Terrill’s 2014 survey of cataloging librarians found that journal articles, conferences, and electronic discussion lists were reported as primary professional development resources while blogs, microblogs such as Twitter, and social networking platforms were utilized as less formal tools for librarians.

Determining what professional development a librarian needs most and in what format has been a question throughout the literature for many years. John Dale Russell (1942) wrote that it “hinges on the answers to two questions: (1) What does the librarian have to do or have to be? (2) What educational experiences should the perspective librarian undergo in order to develop the characteristics and the abilities that are required

for effective service in his profession?” (p. 12). Paul Dunkin, in 1962, wrote that a librarian trained only in historical or traditional cataloging methods “is wrapped up in the details of technical services that the technical services have ceased to be services because they leave no time for public service” (p. 131). Cataloging librarians need to be knowledgeable in both the standards of practice, but also be adaptable as librarianship changes in order to best serve our communities. In 1987, J. Bradford Young examined literature of the time still exploring the tension between “training” and “education” in the context of cataloging and librarianship. He stated that:

Training refers to instruction in the techniques and routines of library cataloging procedures aimed at achieving skill-based competencies...In contrast, education refers to instruction in the principles, theoretical basis, and philosophy of library catalogs aimed at achieving concept-based competencies which support professional interpretation, administration, and implementation of library cataloging systems within the context of general librarianship (p. 150).

Training, by itself, then doesn’t allow librarians the “conceptual foundation” that helps them as librarianship and cataloging changes. Education alone then gives librarians this theory, but they are unable to do basic tasks in real-world practice. Due to the more technical nature of cataloging, Young writes that traditional cataloging courses tended to be more “training” prospective catalogers. This balance of theory and practice described by Young and Moulaison (2012) is aligned with both the concept of the Carnegie Project on the Education Doctorate’s “Problem of Practice” as “a persistent, contextualized, and specific issue embedded in the work of a professional practitioner, the addressing of

which has the potential to result in improved understanding, experience, and outcomes” as well as American Educational Research Association Division I: Education in the Professions (AERA, 2018) who focuses on the “development of professionals” in different disciplines. Similarly, Park and Tosaka (2017) found that a survey of cataloging librarians indicated that “CE interests and activities are linked more closely to specific topics or contexts that are being discussed...rather than an abstract need for training” (p. 167). Practitioners (catalogers) are often the experts teaching cataloging classes, including those offered by the Nebraska Library Commission.

A 2008 study from Sylvia D. Hall-Ellis analyzed 355 position descriptions in various library types and 289 survey responses to identify the competencies required by employers for cataloging and technical services librarians over the previous ten years. While this study focused on graduate Library Science education, the author states that “basic and advanced cataloging courses should include metadata and classification schemes, a bibliographic utility, electronic resources, integrated library systems, interoperability technologies, human-computer interactions, networking, and telecommunications” (p. 324). For the public librarians in Nebraska, specifically focusing on the Organization of Materials course, developing the self-paced module that concentrates on the introductory level skills that librarians can use in their daily practice is the first step, as we then develop the in-depth instructor-led courses to explore more specific topics and allow space to explore creative projects and timely issues in librarianship, helping librarians to connect standards and theory of practice with more forward-thinking practice.

CHAPTER 3: ITERATIVE AND REFLECTIVE DESIGN PROCESSES: PART I - METHODOLOGY

The design processes used throughout this study to develop the self-paced module and the proposed specialized learning tracks are discussed in this chapter. This information is organized into the following sections: (1) research questions, (2) initial research design, (3) self-paced modules leading into advanced instructor-led classes, (4) initial steps to self-paced cataloging module, (5) simplifying systems, clarifying expectations, and focusing content, (6) development of a Moodle practice course, and (7) second redesign of the Organization of Materials instructor-led course.

Research Questions

As I began the CPED program in Fall 2014, my initial research questions centered around a better understanding of the general learning needs of online students and faculty. Over the last four years, and having left a university librarian position for my current one at a state agency, my problem of practice evolved as these research questions then narrowed to the professional development needs of public librarians in an online learning environment. Focusing this still broad idea even further into an actionable project, the following research questions consider students who are enrolled in the Nebraska Public Librarian Certification program, who are all starting with diverse backgrounds and levels of experiences, and the development of a new online instructional approach for the continuing education of these public librarians:

1. As the Continuing Education Coordinator for the Nebraska Library Commission, what can I do to optimize the response to online learning needs of Nebraska

public librarians who are enrolled in the Nebraska Public Librarian certification program?

2. How could foundation-level skills and knowledge needs be addressed as a set of online self-paced learning modules utilizing the Moodle learning management system?
3. How could an online instructional approach based on self-paced modules be an effective tool for the professional development of Nebraska public librarians?

Reexamining the principles set forth by Knowles in the context of the professional development of public librarians utilizing Moodle, in order to achieve the goal of andragogy, concentrating resources at the beginning is important so learners are supported as they progress to increasingly self-directed learning. Illustrated in *Figure 3.1: Self-Paced Learning Module Development Cycle* below and based off of the ADDIE model, I began this research by analyzing what the current Basic Skills curriculum comprised, including both content and delivery, which then led to the question of what could I develop over the next year to move Basic Skills education forward. The lofty goal of developing and implementing self-paced modules and specialized learning tracks over the next year needed a starting point or some kind of pilot project implementing an initial set of test modules (which later became the Moodle practice course and the first Organization of Information cataloging module as described in this chapter). The target audience of this project, as described in Chapter One, is the librarians enrolled in the Nebraska Public Librarian Certification program. Planned implementation for these modules include the testing phase, iterative redesign of the test module, and development

of additional modules in collaboration with Nebraska Library Commission staff and Basic Skills instructors. As the cycle continues and new modules are created, they will replace the current instructor-led courses over the next year. The process of evaluating where we are and where we hope to go in the next year may seem simplistic, but this process encourages reflection as I ask these questions of the classes and the delivery methods. As I work on future modules or, ideally, expand the continuing education offerings of the Nebraska Library Commission, this process remains relevant whether our current focus is on the larger group of public librarians or narrows to the more specialized roles, such as youth services librarians or rural library directors, and offering more advanced instructor-led classes.

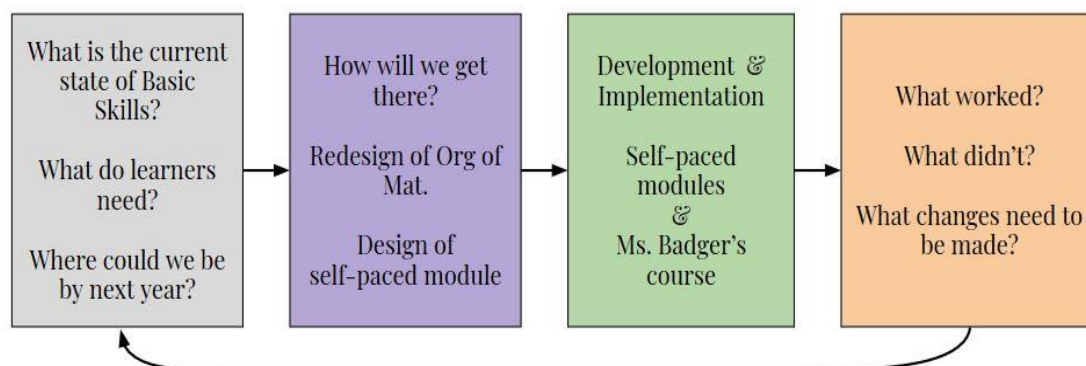


Figure 3.1: Self-Paced Learning Module Development Cycle

Initial Research Design

As J. Lindsay O'Neill writes of their library's weeding/deselection training project, the "bulk of design work for this project happened before actually developing the training" (p. 111). In May 2016, I met with members of the Nebraska Library Commission computer team, the Library Development Director, and the instructors of the

Basic Skills classes. I had just recently started in my role as the Continuing Education Coordinator in February 2016, and this was an opportunity for us to all discuss what the current state of the Basic Skills classes and where we wanted to go with them. Concern was echoed about the constrained two-week schedule. Many of the instructors agreed that it was too short of a time to delve into everything that the instructors wanted to cover with the students. They could only “scratch the surface” of each topic while struggling to help students learn the Moodle system at the same time. Additionally, some of the instructors voiced how they were frustrated that it could be difficult “relearning” the Moodle system themselves, as they only teach one class and don’t use it on a regular basis throughout the rest of the year and small (or at times large) changes to the Moodle system are made with each version update. As instructors, they should be more focused on the content while I, along with members of the computer team, could be focused on the settings and the back-end of the courses (such as adjusting course dates and setting up activity completion). Discussion then turned to whether or not Moodle was really meeting our needs and the idea of looking at other learning management systems was proposed by several instructors. However, arguments against this idea were voiced that by looking at other learning management systems, we would just be causing confusion with yet another system to manage and more logins for students, as well as another new system to learn for the instructors. Moodle was originally chosen in 2010 as our learning management system as it is free and open-source and the Nebraska Library Commission’s computer team has been able to manage all updates and installations as needed. From this meeting, I made notes that the instructors most wanted a simple

system that tracked students' progress. Identifying the settings and activities in Moodle that would make the system itself easier to use became a priority, such as setting activity completion tracking or looking at assignments that required downloading worksheets then uploading them back to Moodle.

The concept for separate learning tracks first emerged through this meeting, as well as continued in different conversations over the last two years with instructors as we've been working on updating the content of the existing Basic Skills classes. Meetings with the regional system directors who work more closely with individual librarians, especially with the new library directors have also supported this idea. These "learning tracks" could include focused classes in specialty content areas such as Library Directors, Youth Services, Adult Services, Technical Services, and Reference. The content of the current Basic Skills classes is intended to be a general introduction to librarianship. However, this current content and the related learning activities may seem as though it's not always relevant or effective for librarians in different positions. For example, in the Library Finance class, the budget process looks very different to a library director trying to keep the library doors open in their community than it does to a library staff member trying to organize a craft project for storytime or to a librarian trying to write a grant proposal. Is there a way to optimize the content for these different positions or what kind of assignment would be more relevant for each of them?

One assignment from the Readers' Advisory course asks students to read a book in a genre with which they are unfamiliar and to then record themselves giving a short booktalk and upload that video to YouTube. Sample comments on the evaluation from

the recent March 2018 course include the following when asked what part of this course they found **least** useful or interesting:

- *“Having to do a video, I don’t have the ability to do one, I don’t have a computer with that capability so couldn’t do it.”*
- *“Trying to do a U Tube video.”*
- *“I did not care for making a youtube video. Just not my cup of tea. I thought the assignments for this class were very time consuming. Had I taken this course at a different time of year it might not have been a big deal, but graduation, end of the year things at school, etc it was just overwhelming at times.”*
- *“Doing the Booktalk was the hardest part, but good to know.”*
- *“I did not like the assignment about reading something out of my norm and then doing a review of it. My spare time is precious and I found it hard to make time to read a novel about which I was unenthusiastic. Sorry.”*
- *“It was all interesting...creating the Book Talk Video and uploading it to U-Tube was an unfamiliar and was time consuming especially when the tutorial didn’t work.”*

I’ve also had multiple librarians call me in frustration or panic for both this year’s class and the 2017 class, saying if it weren’t for their more “tech-savvy” employees, or even their children, they wouldn’t have been able to complete this assignment. Students have also dropped the Readers’ Advisory classes, citing that they didn’t believe recording themselves giving a booktalk would be relevant to their position, it’s not something they would ever have to do, or they weren’t comfortable with the skills required to record and

post a video to YouTube. The two instructors for this class do allow students to submit a written booktalk as an alternative if students contact them, but students continue to drop out. While there are many students who do finish this assignment, and even seem to enjoy it, the question remains - is this the optimal framework for professional development of librarians?

The frustration, and at times embarrassment, experienced by librarians trying to complete some of these classes is certainly not aligned with the goals for the Public Librarian Certification program and the intent for these class, to improve library services throughout the state, and certainly doesn't motivate or encourage librarians to pursue other continuing education opportunities. The Basic Skills classes and the larger certification program are not intended to act as a replacement for formal academic coursework in Library Science. These classes, as other professional development opportunities, are meant to supplement and enhance the work being done by public librarians and to give them information and skills that they can use immediately in the context of their individual practice. While some libraries, such as the Omaha public library system, have dedicated staff development priorities, other smaller or more rural libraries are only open a few short hours each week. These part-time librarians must fit their continuing education in between front-desk duties and other library programming. To expect librarians to spend hours and hours of their personal time outside of the library to complete these classes seems unrealistic and too demanding, rather than optimizing these classes so we encourage librarians to participate fully and see the Nebraska Library Commission as a critical resource in their professional development. Considering how to

optimize our learning content and delivery, and using the specific recorded booktalk as an example, the assignment may work much better in an advanced instructor-led course as part of a specialized learning track which could be designed more specifically to presentation skills. Foundation-level knowledge (**what** is a booktalk rather than **how** to do one) would be included in a required prerequisite self-paced module. This approach would give librarians the knowledge and vocabulary to understand basic Readers' Advisory issues. For those who are interested or need to learn more about **how** to give booktalks, they could then continue on with the kind of advanced instructor-led courses that would allow additional time to create and explore different topics with more time for troubleshooting and questions as the basic information would already have been covered in the self-paced module. Creating and incorporating more specialized learning content could then be tailored more specifically for what each intended audience needs to know in their individual professional roles based on "intellectual skills" as described by Gagné, Wager, Golas, and Keller (2005, p. 49) in order to gain "the capability to *do* something."

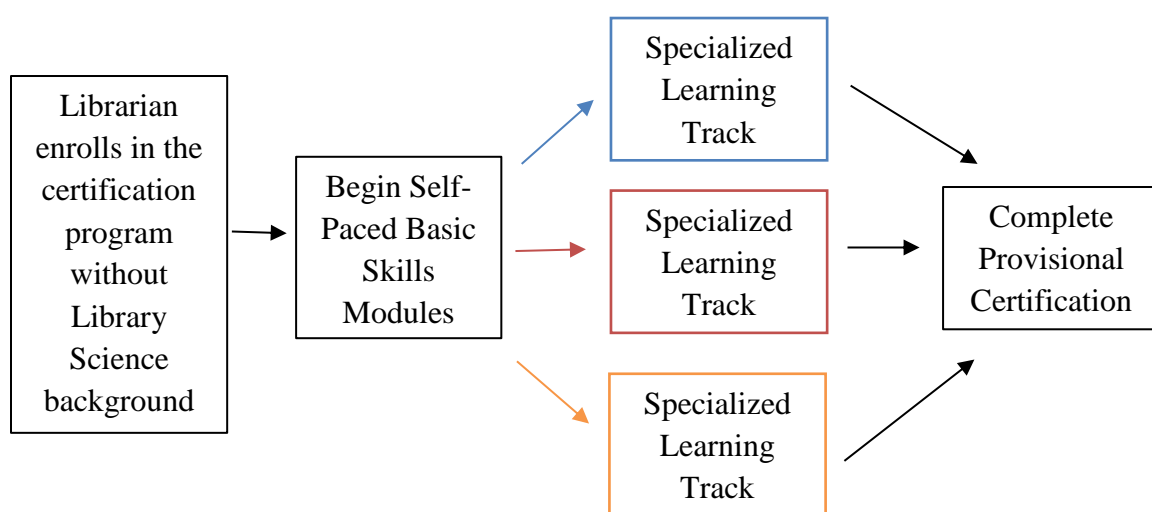


Figure 3.2: Certification Program Pathway

As the idea of self-paced modules and specialized learning tracks continued to develop, I began mapping out how they might work within the certification program, as illustrated above in *Figure 3.2: Certification Program Pathway*. As a librarian first enrolls in the certification program without a formal library science background (at least an Associate's degree or other professional certificate), they would complete a set of required self-paced modules before going on to complete more advanced instructor-led coursework in order to complete their provisional certification in the first three years of enrollment.

Self-Paced Modules Leading into Advanced Instructor-Led Classes

The impetus for change began with schedule and accessibility as librarians need continuing education options at different times throughout the year, as well as instructor workloads and attending to the concerns of the state budget for these classes. Currently, each of the Basic Skills courses are offered only once a year, lasting for two weeks, with the exception of the Organization of Materials class which lasts for four weeks. This is how the schedule has been set since the courses started in 2011 and how they've worked with instructors' schedules. Instructors are not full-time teachers and help teach these classes around their existing workloads, lending their professional expertise in different subject areas. As the Continuing Education Coordinator, my position is the only one with time specifically intended to focus on professional development in this way.

With a set of introductory self-paced modules as a common requisite starting point, learners will be able to access the information more easily as content will be available immediately whenever they need it. While the Basic Skills classes are only

offered once a year, public librarians are hired throughout the year across the state and while Nebraska libraries may have some common busy seasons, such as the Summer Reading program, each library has their own schedule which may or may not include specific time for staff development. April may not be the ideal time of the year for a staff member to take the Organization of Materials class because of other projects or programs in their individual communities, but currently that's when it is offered each year. The Omaha Public Libraries have started building their own training courses for staff development and I've been told by their Staff Development Manager that one reason was that they need their new hires to know certain things sooner rather than later:

...in any given year, we onboard between 50 and 100 new staff at the clerk level and up. So to bring each new staff person up to speed throughout the year, we can't wait for a Basic Skills class to come around. That's why we've purchased our own LMS and created some of our own courses. We initially thought we could create all the content and courses we needed to populate the Learning Paths we've established for different job classifications. But it's way too difficult and time consuming for two staff (it's just me and Danielle doing this work) to build all of these courses from scratch. So now, we are doing more "curation", by pulling in webinars and content from other sources...I'm totally behind your hope to make the Basic Skills classes asynchronous / self-paced. It's the direction that training as a profession is going.

I've talked with multiple instructors about the possibility of adding more classes throughout the year, which would mean multiple classes running at the same time. While

offering more classes at a time may help, adding identical sections of the already existing classes wouldn't be evaluating the content of the classes themselves or the delivery system. Due to the number of enrollments in each class, as discussed in chapter one, we've already added an extra section and instructor to most classes. Additionally, adding even more classes affects the Nebraska Library Commission's budget. For the 2018 schedule, we have three instructors who are Regional Library System Directors and one retired Director teaching twelve classes or sections at different times during the year. These instructors, as they are not employed directly by the Nebraska Library Commission and teach on their own time, are paid \$250 for each class (for a total of \$3,000 per year). Increasing the number of classes would then, obviously, increase this amount for the Library Commission's budget which relies on state funding and may fluctuate each year.

Incorporating self-paced learning modules for the introductory content will allow the instructors additional time and resources so that they could teach more advanced courses or in-depth topics throughout the year leveraging their professional expertise, rather than paying them to repeat the basic content. These additional instructor-led courses could also be available to any public librarian in Nebraska eventually, not just limited to those who only need to fulfill the Basic Skills requirements. More advanced courses and topics have been requested by both individual instructors and students who would like to delve deeper into topics, such as advanced cataloging or developing social media strategies in libraries. For example, one instructor, the Children's Librarian at the Nebraska Library Commission, has expressed her interest in adding a course specifically focused on library services to teens (which would split the current Basic Skills course

Library Services to Children and Youths into two classes), but currently is limited by her existing Basic Skills workload. As an organization, self-paced learning modules will also allow us to offer more responsive continuing education for library practice needs or issues in a more timely fashion, such as, the issue of “fake news” in public libraries or gender inclusivity guidelines in cataloging practices. While some of these topics may be determined to work better as a webinar or as an in-person workshop, we’re currently limited to the existing class schedule, though this research hopes to propose a structure that will allow identification and development of new opportunities for both instructors and students.

The self-paced modules will act as a set of prerequisites that a public librarian will need to complete as part of their provisional certification (first three years) after enrollment. These modules will cover the most basic of library skills and knowledge as identified by the American Library Association’s “Core Competences of Librarianship” (2009) and other specific professional sections or roundtables, such as the Association for Library Collections and Technical Services’ Cataloging and Metadata Section (2017), and through the design research process working collaboratively with the instructors. These prerequisite modules will need to be completed before a librarian moves on to the specialized content which will then be the advanced, in-depth instructor-led courses. Collaboration with the instructors will be necessary to create the additional modules, as well as data from the initial implementation of the cataloging module prototype which will be discussed further in Chapter Five. Each module will contain a brief introduction

to the content, objectives, lessons, and an evaluation component which can all be completed by the student at any time.

Initial Steps to Self-Paced Cataloging Module

The cataloging self-paced module was developed based on analysis of the existing Basic Skills class, in collaboration with the Cataloging Librarian, Allison Badger, over the last year and using the American Library Association's *Core Competences* (2017) and from the Association for Library Collections and Technical Services' Cataloging and Metadata Section (ALCTS, 2017) as guidance.

The following section in this chapter describes the process leading up to the development and testing of the self-paced module. Chapter Four details the module and the initial testing with the volunteer students. Ms. Badger started as the Cataloging Librarian at the Nebraska Library Commission in January 2016, shortly before I was hired as the Continuing Education Coordinator. She teaches the Organization of Materials Basic Skills class, as well as additional cataloging classes as part of the Nebraska Library Commission's Cataloging Certificate program. This second certificate program includes classes such as Authority Control, Cataloging Sound Recordings, and Understanding MARC21 Bibliographic Records. She was eager to help and willing to be the "guinea pig" for developing a self-paced cataloging module. Building this prototype self-paced module, our primary goals were to simplify the existing content, encourage more participants to then go on to some of the cataloging certification classes, and free some of her time and resources so that we could then develop more specialized and advanced offerings for Nebraska librarians working in Technical Services. The opportunity to use

this self-paced module as a “lead-in” to her other cataloging classes, such as Understanding MARC21 Bibliographic Records which was offered in May 2018, would potentially give us an idea of how a possible framework might look utilizing a mixture of self-paced modules and instructor-led courses, similar in ways to the modular web-assisted approach to cataloging education described by Moulaison (2012).

As Ms. Badger and I both started working at the Nebraska Library Commission early in 2016, the Organization of Information class was the first experience with the Basic Skills classes for us both. As she was still new in her position, the March/April 2016 class was taught by the Technical Services Supervisor and the previous Cataloging Librarian, but this gave Ms. Badger and I a chance to start looking at the content and some of the issues reported by both instructors. One assignment in particular asked students to download MARC records from the Library of Congress online catalog. Students didn’t have to open the document (because the format is unreadable), but it was supposed to walk them through the process of how to download MARC records and then save the file. Many students struggled with this as they were trying to open the file after it downloaded, instead of simply uploading the records back to Moodle (which also required the student to know how to compress a file), then thinking something went horribly wrong. As they struggled to download the files from the Library of Congress online catalog and then to upload them to Moodle or email, the original goal of the lesson was lost (i.e. why librarians would need these kinds of files and how the files might actually be used in cataloging). This example pointed to a larger issue of the Basic Skills courses as students become lost or frustrated by the mechanics of the assignment and by

the Moodle system itself and the learning content gets missed. Below (*Image 3.1*) is a screenshot taken from that 2016 course homepage as it appeared when Ms. Badger and I started reviewing this class for the 2017 section. This image is intended to illustrate the number of readings, forums, different resources, and Moodle “blocks” (appearing on the right-hand side of the screen) that students encounter as soon as they logged in to the class. Most of the Basic Skills classes appeared in very similar formats.

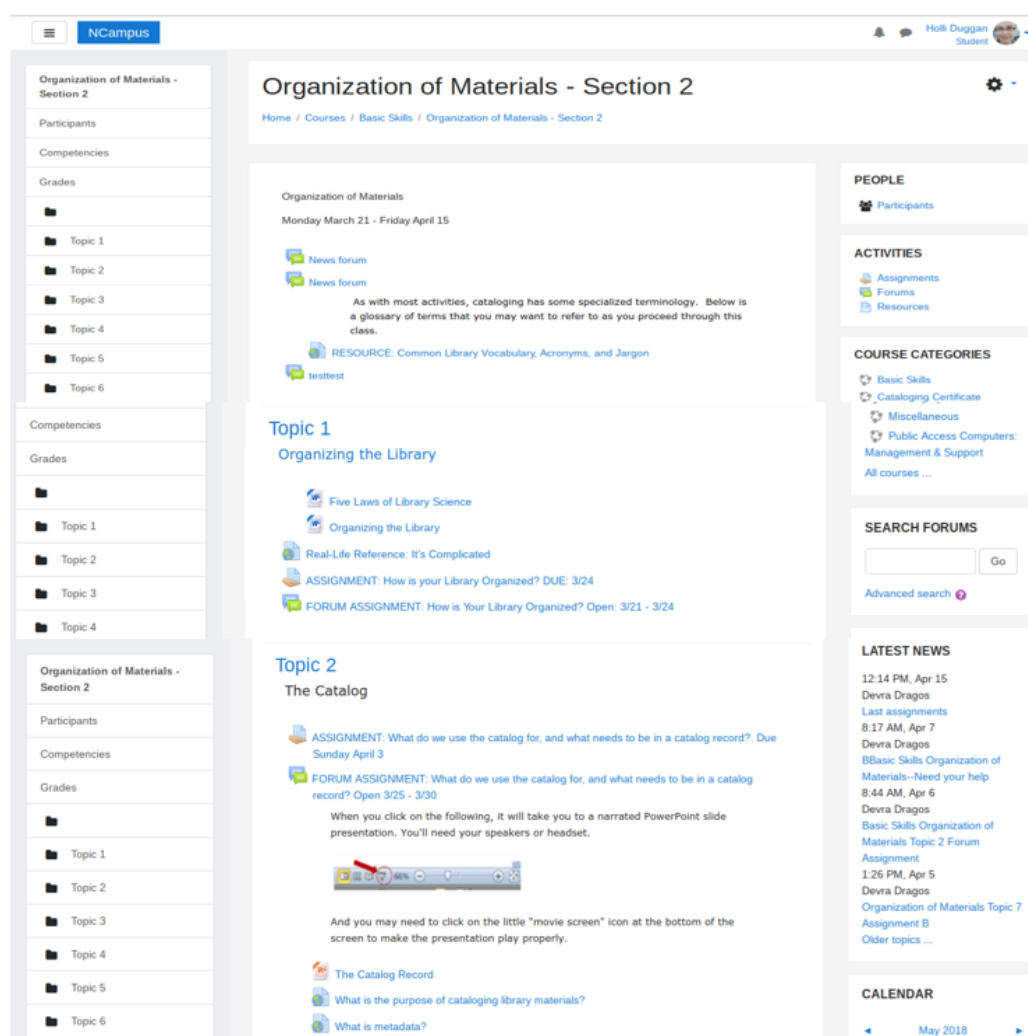


Image 3.1: Organization of Materials 2017 Homepage Screenshot

To put it simply, there was an overload of information going on with this homepage. This illustrates what students first saw when they logged in. There were numerous articles, some were URL links to online publications while others are Word documents that need to be downloaded first. There was a narrated PowerPoint that took about an hour to listen to that was presented by the previous Continuing Education Coordinator which would have needed to be redone by myself or Ms. Badger in order to update some of the information and contacts. There were numerous resources and extra credit webinars listed throughout, as well as multiple assignment icons/links and forum assignments. The most confusing part, for both instructor and students, about the ASSIGNMENT links were that the ones listed immediately above or below the FORUM ASSIGNMENT links, were identical and not separate assignments. As I understand from discussions with instructors, these first assignment links acted as a placeholder so that the forum activity would then be included in the gradebook. This may have been required in previous versions of Moodle, but is no longer necessary as most classes have now set up the “Activity Completion” feature in Moodle, where activities are automatically “checked off” as soon as the student completes the requirements. For example, as soon as a student would create a discussion thread and post two replies to other students’ discussion board posts, they would get a blue checkmark in a small box next to the forum assignment link on the Moodle homepage.

A lot of good content existed in each topic of this 2016 class, but it seemed to be buried in different files and links that all open in different windows. Students are supposed to work from top to bottom, going through each topic and then completing the

assignment at the end of each lesson. However, one primary concern identified was that there didn't seem to be meaningful connections between each activity or resource.

Students are expected to go through and read these articles, but then what? What information are they supposed to be getting from each article? How do these activities relate back to their libraries or to their work? Are these assignments more frustrating than they are helpful in promoting any meaningful learning? For example, in examining "Topic Five: Assigning Classification" more closely, a lot of different links about the Dewey Decimal System and classification numbers were listed, but several of these links seemed out of place. The "NLC Dewey Services" link took the student to a page on the Nebraska Library Commission website that has information about Dewey products and group memberships. Are students supposed to do something with this? Is it supposed to be labeled as a resource instead? The Dewey Shelving Order Game opened a link leading to a training game which is supposed to help someone learn call numbers and how to shelve materials. But in the context of this class, were students supposed to play it and learn something? Or were they supposed to just try it out? Or just know that something like this is available? Lastly, there were two links in this topic that discuss alternatives to the Dewey Decimal system: genre-based classification and the Monarch Method. Did students need to know the details of these alternate systems? Or did they just need to know that they exist and that some libraries classify materials in different ways? What were we really asking our students to know? The forum assignment for this topic asked students to find call numbers of books based on titles, as shown in the screenshot below (*Image 3.2*). This assignment realistically (and easily) could be done without having read

any of the included articles or resources, it would just require a librarian to look at their (or another library's) shelves. However, the student replies to each other's posts were interesting as there were many comments where students were surprised to learn how other libraries organized their materials, such as having separate biography or cookbook sections which indicates that students were at least interacting and learning from one another in some way. Outside of the forum discussions and the submitted assignments, there was no evaluation component or feedback collected from students for the course overall.

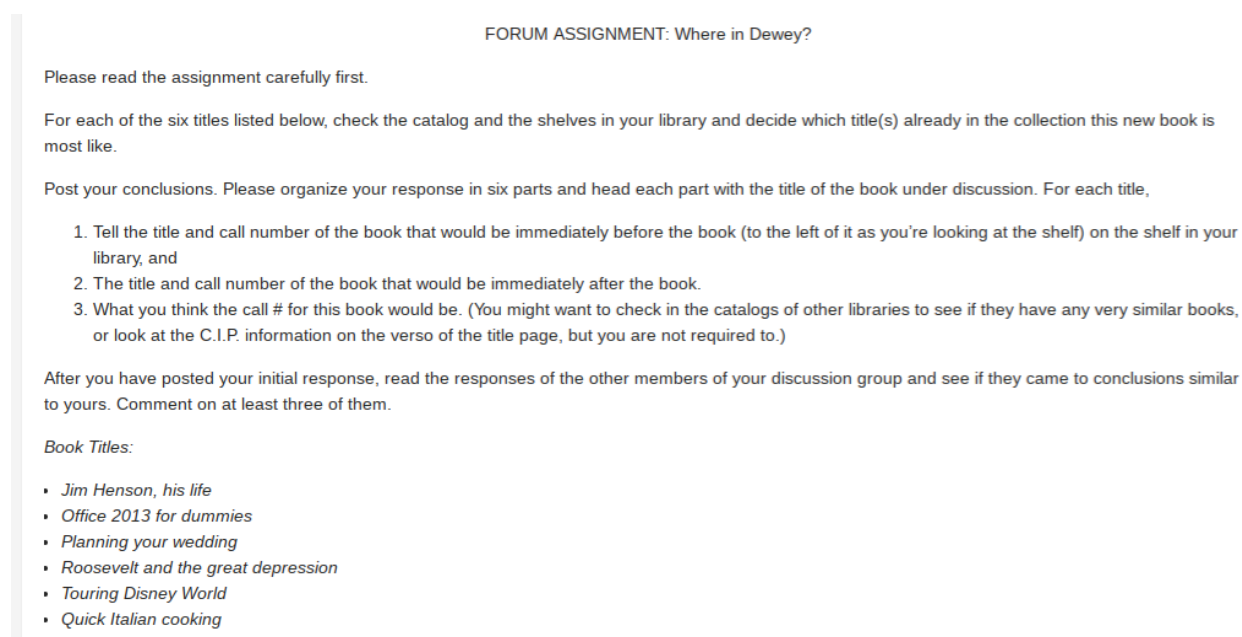


Image 3.2: Forum Assignment Screenshot

Simplifying Systems, Clarifying Expectations, and Focusing Content

As I began working with Ms. Badger more closely on the first redesign of Organization of Materials, the first goal was to simplify the system and to clarify course expectations, so students would have an easier time getting started and going through the

course. We tested the self-paced cataloging module alongside an instructor-led section in March to May 2018. This decision and process is explained in more detail in Chapter Four. The images below are from the March 2018 instructor-led course, but are included here to illustrate several points in the design process over the last year. Trying to decrease the amount of information on the screen, I removed the extra “blocks” as students don’t need them for this kind of introductory two-week class and the instructors don’t make use of many extra features in Moodle (*Image 3.3*). These blocks included recent activity, online users, a course summary, a search forums box, a calendar, a list of upcoming events, latest news, people, course categories, and activities (Moodle, 2018). As with other Basic Skills classes, I turned on and set up the activity completion function (the blue checkmarks in the boxes as shown below). This feature allows students to more easily track their own progress throughout the course. While we can’t know for certain that students actually read the materials, the “Activity Completion” for the articles and documents was set to “Require view - Student must view this activity to complete it.” Forums were set to complete as soon as the student created and posted their original discussion thread and replied to two of their classmates’ posts. These settings from the administrative and editing side can be seen in *Image 3.4: Activity Completion Screenshot*.

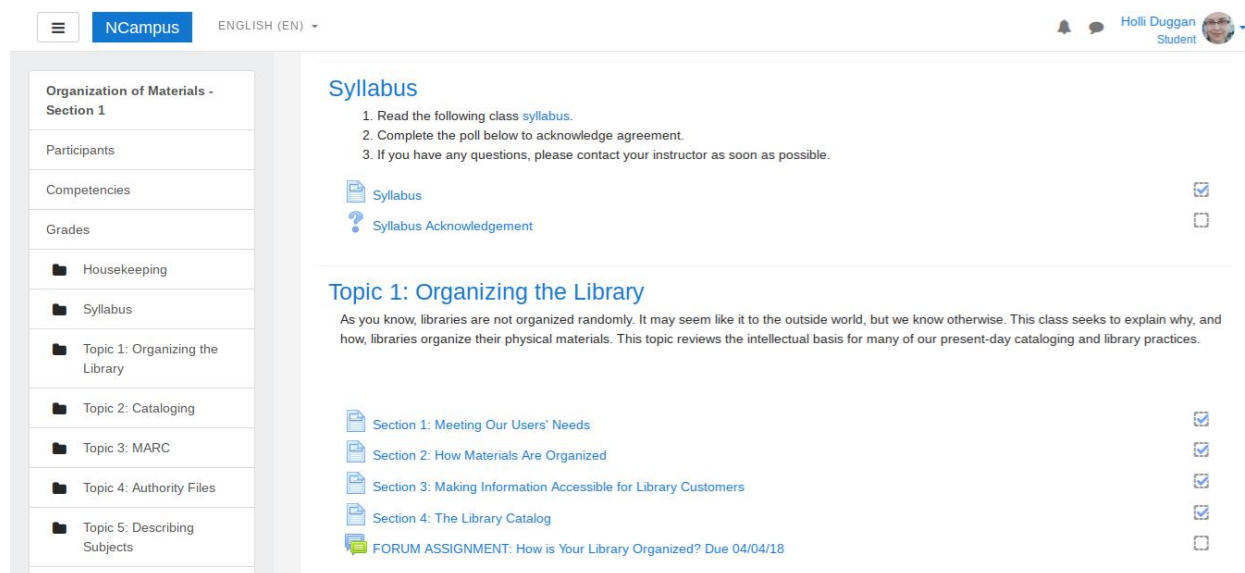


Image 3.3: Updated Organization of Materials Homepage Screenshot

▼ Activity completion

Completion options locked

This activity has already been marked as completed for 87 participant(s). Changing completion options will erase their completion state and may cause confusion. Thus the options have been locked and should not be unlocked unless absolutely necessary.

Unlock completion options

Completion tracking	?	Show activity as complete when conditions are met
Require view		<input type="checkbox"/> Student must view this activity to complete it
Require grade		<input type="checkbox"/> Student must receive a grade to complete this activity ?
Require posts		<input type="checkbox"/> Student must post discussions or replies: 1
Require discussions		<input checked="" type="checkbox"/> Student must create discussions: 1
Require replies		<input checked="" type="checkbox"/> Student must post replies: 2
Expect completed on	?	26 May 2018 <input type="checkbox"/> Enable

Image 3.4: Activity Completion Screenshot

For many librarians, these Basic Skills classes are the first experience with online classes and they are new to discussion boards. Many don't know what to expect or where to start. To help address this, I wrote and posted a syllabus to this and the other Basic

Skills classes (included in *Appendix D*). Since I began as the Continuing Education Coordinator, there have been three incidents in which a student submitted or posted another student's work as their own. Additionally, there was concern about inappropriate comments made in some of the forum discussions in several of the classes. Before this syllabus, there weren't any posted guidelines or code of conduct for students. This syllabus was intended to set some expectations for the course, how to interact in an online classroom, to answer some basic questions such as how to drop the class or to earn CE credit, and some basic tips for success in an online classroom.

Next, I worked with Ms. Badger on breaking up the content into smaller, more manageable pieces. We took out the PowerPoint slides and extra webinars, then identified which RESOURCE links we wanted to keep in the class, such as the Nebraska Library Commission Cataloging Services and Resources, and moved all of those links to a separate section at the end which was specifically labeled as "Cataloging Resources" with "The following links are resources that you may find useful:" written underneath the title. In each topic, we added a short description to give the students a better idea of what that topic would be covering and what they were to be learning, as well as trying to connect the topics together to help the flow of the class as students move through the different topics. For example in "Topic 2: Cataloging," the description now reads:

Topic 2 focuses on cataloging, or the process of creating records for library resources. We'll not only look at the rules that guide catalogers, but we'll also examine the different parts of a catalog record. We'll conclude by reviewing various OPAC displays. There are many ways that libraries can display the same

information. It's important to realize there isn't a right or wrong way to catalog or display data. Libraries need to focus on what's best for their users; hence, the variety in OPAC displays.

We did decrease the number of articles included, based on currency of information and repeated content. At that point in the redesign process, we didn't delete all of them as we were still reviewing the course content as a whole and how we wanted to present the information.

Development of a Moodle Practice Course

As I continued to see or hear from students who were struggling with some of the basic technical aspects of using Moodle, such as uploading a document, and others who were calling me frustrated or embarrassed because they had never used discussion forums before, I wanted to create a space for them outside of a "graded" class that they could use to explore the system and practice using different tools in Moodle. Alongside the redesign of the Organization of Information course, I then developed a short self-paced course to practice Moodle which was posted in April 2017. The purpose of this course was to walk students through the different parts of Moodle and how to complete course tasks that they may encounter in the Basic Skills classes. These tasks included identifying the News Forum for class announcements, identifying the different icons, opening online resources (such as URL links for articles), how to post and reply in discussion boards, how to download Word and PowerPoint documents, how to upload a document from their computer in order to submit an assignment, and how to send a message to someone in Moodle. My goal for this practice course was to keep the information very simple and

clear to help students become more familiar with the system itself and relieve some of the anxiety that some librarians expressed when enrolling in any of the Basic Skills classes. Screenshots of the Moodle practice course and the login details to explore the module further are included in *Appendix E*.

Since it was designed to be practice and only open to those librarians taking Basic Skills classes, it was not available for open enrollment and not listed on the Nebraska Library Commission website. I realized that simply having the course available and listed on the Moodle course homepage wouldn't be enough. Only two people have completed the practice course and I haven't had any new students contact me about enrolling. Reviewing this practice course in context of designing and creating additional self-paced modules, I considered that this could possibly be the first prerequisite, even before the self-paced modules as it would provide an additional support as learners enroll in these potentially unfamiliar online learning environments.

Second Redesign of the Organization of Materials Instructor-Led Course

After the 2017 Organization of Materials course, I met again with Ms. Badger to review the changes we had made and to discuss the next round of editing for the 2018 class which also became the basis for the self-paced module. Starting with the "Feedback" activity, we reviewed the students' replies to identify what worked well and what didn't. We found that students were still not understanding why we were asking them to learn about MARC, as some students seemed to think it was "outdated" or "not used in my library." We also found that this edited class was still taking students hours

and hours. One of our goals for the next class was to streamline the class so that librarians could more realistically complete the class during their regular work hours, similar to other professional development opportunities such as watching webinars or attending workshops. Starting this process, we stripped everything from the class, including all articles and activities so that we could spend time examining and evaluating each one. We reviewed the Core Competences of Librarianship from the American Library Association (2009) and the Core Competencies for Cataloging and Metadata Professional Librarians (2017), focusing the content on the “knowledge of foundational cataloging and metadata principles” (ALCTS) which includes the historical context for metadata principles, systems and technology, and “big picture” understanding of the connection between cataloging and other areas of librarianship. The intent behind this decision was that this Basic Skills class was just the introduction, so we wanted to start with the most basic concepts so that future, more advanced cataloging classes could then build off these and address the remaining competencies. Below are screenshots from the 2018 course with explanations of what was updated. To examine the class in more detail, the login and additional screenshots are included in *Appendix F*.

Starting at the top of the updated course, a separate “Housekeeping” topic was added (*Image 3.5*). This included a new welcome message posted by Ms. Badger that described in more detail what the class would be covering, certain activities within the class, and a brief introduction to the Moodle system. A copy of this welcome message is included in *Appendix G: Welcome to Organization of Materials*. We also set up a separate discussion forum for “Question/Answers” that encouraged students to ask

questions, if they had any. We kept the syllabus as written, although after reflection, this information could've been combined with the introductory welcome message.

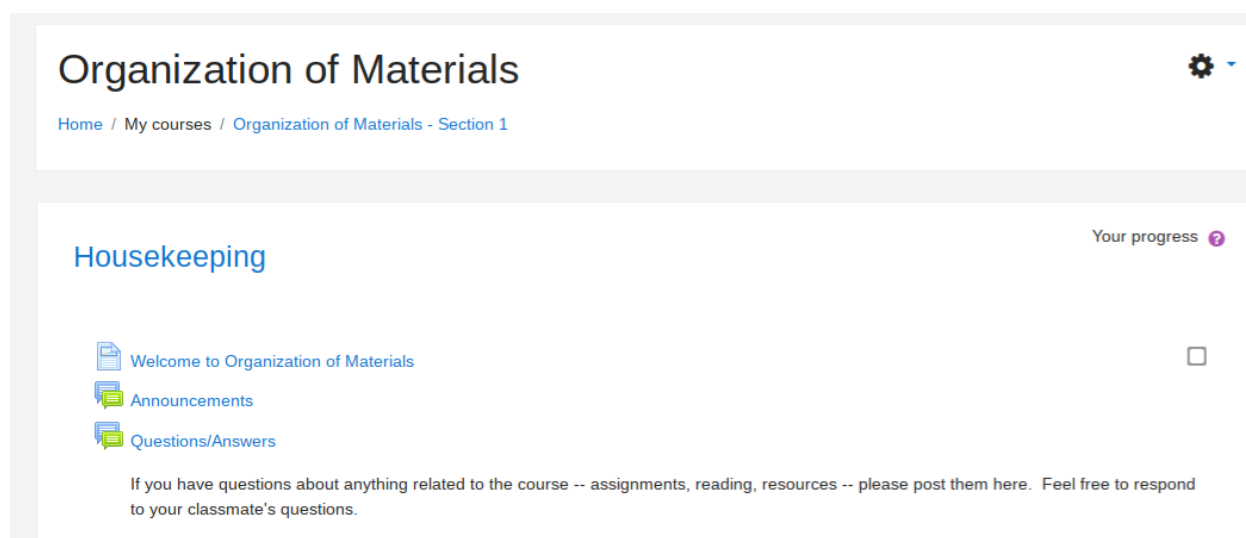


Image 3.5: Updated Housekeeping Section Screenshot

Moving to “Topic 1: Organizing the Library,” we focused on breaking down the content of the class into manageable and accessible sections that were clearly labeled to help students move through the class in a logical way (*Image 3.6*).

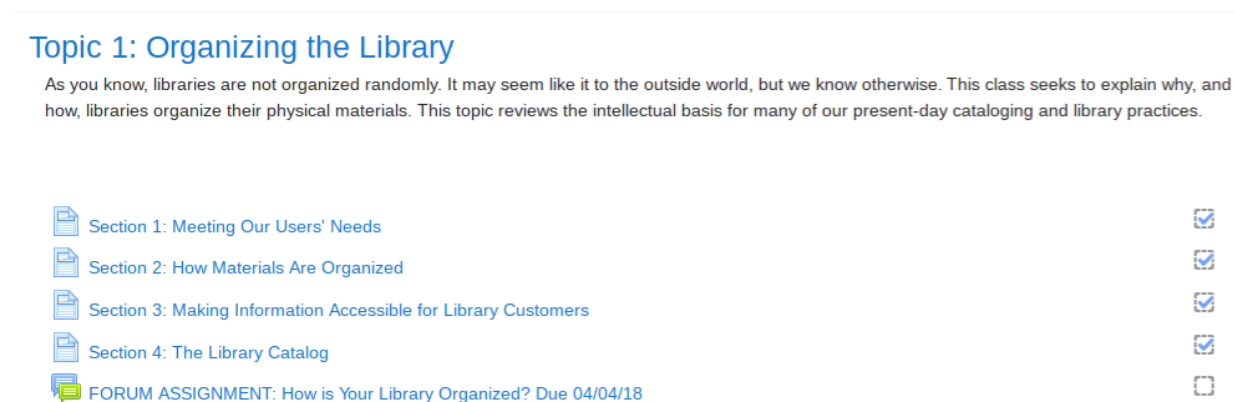


Image 3.6: Topic 1: Organizing the Library Screenshot

One identified priority was encouraging students to make connections between what they were learning in this class and what happens in their library, as well as why

they were learning about some of these topics. For example, in “Section 1: Meeting Our Users’ Needs” why do students need to learn about S.R. Ranganathan and his Five Laws of Library Science? Students may be unconsciously aware of these five laws affecting general library practice, but his ideas have influenced library science for decades and will continue to do so. This knowledge is also listed as part of the *Core Competencies for Cataloging and Metadata Professional Librarians* (2017) as published by the Association for Library Collections and Technical Services, a division of the American Library Association. To further encourage students to connect the content and learning tasks with their own practice and attempting to build in some “cognitive strategies” (Gagné, Wager, Golas, Keller, 2005, p. 51), we added “Reflection Questions” to each section. The “Section 1” questions include:

- Think about the library you work in. Is it organized in such a way as to enable users to find the items they need?
- Can patrons easily find the resources that answer their questions?
- Can they locate items that appeal to them? When a customer walks into your library, what are their options for finding the items they want?

These reflection questions weren’t initially intended to be assignments as I explored some of the features in Moodle searching for a way for students to best respond to these reflection questions without simply adding yet another discussion board assignment. Rather, we wanted students to start thinking about how library patrons find information within each section. “Section 2” then builds on these questions asking how their libraries are organized and if there are ways in which their organization could be improved.

“Section 3” asks students to think about different search strategies and how, as librarians, we can help accommodate these differences. Finally, in “Section 4” we ask students to think about their own search strategies and introduce the concept of catalog records and access points. The readings and reflection questions then led to the Forum assignment at the end of the topic/lesson (*Image 3.7*).

FORUM ASSIGNMENT: How is Your Library Organized? Due 04/04/18

FORUM ASSIGNMENT: How is your library organized?

The goals of this forum are:

- to encourage you to think about the principles of organization
- to encourage you to consider if your library is organized in a user-friendly way
- to show that different libraries may be organized in different ways (compare/contrast with your library)

Think about your library and the way the shelves are organized:

- What are the major sections and subsections?
- Why are they organized in this way? Are there any "local" sections that you think may not exist in other libraries?
- What works well and what would you improve on how things are organized?
- As you're helping patrons search for an item using the library's online catalog, are you able to take that information and easily locate that item out in the stacks? Or do you feel there is a disconnect between the electronic record and the physical item? Why or why not?

Answer these questions in a forum post below (and feel free to add in any thoughts from the reflection questions), then comment on two (2) other posts.

Image 3.7: Updated Forum Assignment Screenshot

Adding the goals of the forum, we hoped that students would then see the reason for this activity. The updated questions focused on their library's organization, trying to make the first connections between the library's online catalog record and the physical item on the shelf. As identified in previous courses and conversations with librarians, most of the students in this course are not catalogers and struggle to see the point of learning this information. By focusing the content more on what cataloging is and how it can improve library service, even non-catalogers will then find useful information that they can then apply to their own library collections to make materials more accessible to their patrons, such as providing more relevant search results. Knowing the library catalog's structure

and understanding how the catalog works then makes it easier for librarians to conduct better searches which in turn helps them better serve the library users in their communities.

Using this first topic as a template, I continued working with Ms. Badger to update and redesign the content. Updated activities included comparing their library's record to a digital library, searching "big bookstores" for common authors to demonstrate authority files, and several short quizzes. In "Topic 2: MARC" we experimented with the idea of a pre/posttest evaluation. Students were asked to take the quiz at the beginning of the lesson, then to retake that same quiz at the end. We found that students did do better on their second attempt, but as the quiz itself was one of the few leftovers from the previous year's class, we found that the questions may have been too advanced for the updated material covered for this class. Students were asked to identify the different parts of a MARC record within a single example. The updated content within this section focused primarily on the concepts and background of MARC records, but the questions in the quiz didn't align with the readings.

The evaluation/feedback for this course included the same questions as previous evaluations. I made this decision so that we could more easily compare the different classes. The 2018 evaluation/feedback is included in *Appendix H: Organization of Materials Instructor-Led Course Student Feedback*. Out of twenty-four responses, only three students reported that they spent more than three hours per day to complete the class while the others indicated that they spent either less than one hour or between one and two hours per day on course activities (forums, reading articles, email). Looking at

the feedback overall, student responses were very positive. One issue emerged that has echoed previous feedback, is some students expected more on the physical organization or layout of the library collection. Discussing this with Ms. Badger, we thought that the title of the class, Organization of Materials, may itself be misleading. Renaming the class to either “Introduction to Cataloging” or “Cataloging 101” may be more accessible. Organization of Materials is used in many formal Library Science programs for their introductory cataloging classes, but may not be as relevant in this professional development context. Additionally, the section on MARC, especially the challenging pre/post quiz, seemed to be most frustrating or confusing which is something that needs to be reviewed in more depth for the next iteration to better align the updated content with the learning activities. Additionally, some of the other topic areas that students noted that they would’ve liked to be addressed, such as the bookstore method of organization, needs to be evaluated if it should be added in this introductory module or should be included in a more advanced instructor-led course. However, many other students reported that they found the MARC content most helpful or interesting. Two comments in particular, from self-identified non-catalogers stuck out as a great improvement from last year’s course (even though one was a reply to what they found least useful or interesting): “I am not looking to become a cataloger, so the information about MARC records and subject headings wasn’t the most helpful to me, but I did like learning what I’m looking at, so it was still useful information to have” and “I’m not a cataloger, so it was a good introduction to this world.” Other comments included:

“I appreciated how the class was organized and broken down into manageable chunks.”

“I really liked the way that each section was set up. I loved how the lessons were written in a simple and straight forward manner that made sense and was easy to understand.”

“Plus it was not overwhelming! It was enough to tell me about classification.”

“I am new to my position and I am still learning things, so without having the proper training or knowledge of this information, this was great and very helpful!”

“It was very well done. I got an overview that will help with my work.”

“How to read the MARC record. I was struggling with this and now it makes more sense to me.”

“The MARC coding system. I can read the catalog records more easily now and ascertain more information from them. It really is a genius system in many ways, that consolidates and reorganizes millions of records. I think that is neat.”

Looking at the evaluation feedback and completion data, it seems as though the updates to this course were successful overall. Students seemed to gain a better understanding of basic cataloging concepts and indicated that they would be able to apply these skills to their work, even if it was simply the ability to read a catalog display more effectively. Along with the more positive feedback on this course and shortened time demands, only three people dropped this class. One student dropped because she got another job outside the library world and no longer needed or wanted to participate in the certification

program, and the other two students never started any of the activities or responded to emails. With only structure updates and minor changes to assignments, this class became the foundation for the self-paced module offered in April/May 2018 which is discussed in the next chapter.

CHAPTER 4: ITERATIVE AND REFLECTIVE DESIGN PROCESSES: PART II

- LESSONS AND REDESIGN

The design and development of the Organization of Information self-paced module is reported in this chapter. This information is organized into the following sections: (1) the design of the self-paced Organization of Materials/Cataloging module (2) the testing of the self-paced Organization of Materials/Cataloging module.

Design of the Self-Paced Organization of Materials/Cataloging Module

Starting the second cycle of analysis and redesign, using the work I had done with Ms. Badger on her instructor-led section of the class as a template, I began building the self-paced module in January 2018. The Nebraska Library Commission Computer Services Director was able to set up another Moodle site on a test server. I had contacted him about setting this up as I wanted a “clean slate” to explore some of the additional features and settings of the Moodle system without unintentionally affecting any of the existing courses with potential changes. Screenshots of the self-paced module homepage and the login information is included in *Appendix I*.

Starting with “Topic 1: Organizing the Library,” I tried to utilize Moodle’s “Lesson” activity. The description of this activity, available on the administrative side, when editing and adding activities, shows the following description (*Image 4.1*).

The lesson activity module enables a teacher to deliver content and/or practice activities in interesting and flexible ways. A teacher can use the lesson to create a linear set of content pages or instructional activities that offer a variety of paths or options for the learner. In either case, teachers can choose to increase engagement and ensure understanding by including a variety of questions, such as multiple choice, matching and short answer. Depending on the student's choice of answer and how the teacher develops the lesson, students may progress to the next page, be taken back to a previous page or redirected down a different path entirely.

A lesson may be graded, with the grade recorded in the gradebook.

Lessons may be used

- For self-directed learning of a new topic
- For scenarios or simulations/decision-making exercises
- For differentiated revision, with different sets of revision questions depending upon answers given to initial questions

Image 4.1: Moodle Lesson Activity Description

Documentation on using lessons is available on the Moodle website in the section on “Lesson Activity” (2017). The emphasis on self-directed learning, instead of presenting the information as a “Page” with content as used in Ms. Badger’s section, was appealing.

My intent was that each lesson would be small “chunks” of information that students would then click through more easily without having to return to the “home” course page. Evaluation and reflection of this decision is discussed in more detail in Chapter Five. In the first lesson of “Topic 1,” I included reflection questions, but changed them into an ungraded essay assignment as this would ask the students to pause and think about their libraries in connection with what they had just read. Asking students to write a few notes would encourage them to stop and think for even just a minute instead of just clicking through, and I could then better evaluate how they were interacting with the course after they submitted their answers. This lesson was the only one to require reflection responses, as I wanted to test the idea and I was concerned it would become tedious if I included them in every lesson.

In “Lesson 3” I added a short activity that included a screenshot of a book search using the online catalog of Omaha Public Library. The activity then asks students to identify different “access points” and match them with the correct information. This was intended to help students connect what they see on search results as part of online library catalog display that they may be much more familiar with and these concepts and technical cataloging terms. In “Lesson 4,” I added a true/false question that simply asked “Good cataloging allows librarians to help their patrons find what they need and increases the value of the collection.” Again, this was trying to reinforce the idea that even non-catalogers benefit from this knowledge and making that real-world connection between improving library services and what they’re learning. The next activity in this section is a short matching activity of five terms and their definition. Even if librarians

aren't catalogers, it's important for them to be familiar with some basic common vocabulary when they're working with their own catalog, other librarians, or their vendors.

Following through the remaining sections, I worked on dividing the content into smaller pieces. However, starting in "Topic 3," I began to worry that I was trying to break it up too much and that I wasn't utilizing the "Lesson" activities fully. More on this concern and other reflections are discussed in Chapter Five as I went back and reviewed this first testing phase. Activity completion for the quizzes was set for students to receive a passing grade which I set low with multiple attempts available for students. The activity completion for each lesson was set with two conditions:

- Students must view this activity to complete it
- Students must reach the end of lesson page to complete this activity

As I was finishing this self-paced module, I again had discussions with Ms. Badger and the Library Development team at the Library Commission about implementation and testing. As the Basic Skills classes were increasing in size between sixty and seventy students, we often were splitting classes into two sections with one instructor for each one. Registration for the Organization of Materials course opens each March and since we hadn't actively been marketing or communicating the new self-paced format option, I didn't want to force all students into this self-paced module without testing it in a smaller group first. Additionally, with the updates to Ms. Badger's course, running an instructor-led section alongside the test section of the self-paced module

allowed for some interesting comparisons with how some of the content was presented which is discussed in more detail in Chapter Five.

Testing of the Self-Paced Organization of Materials/Cataloging Module

Registration for the 2018 Organization of Information course opened on March 5, 2018 through the Nebraska Library Commission's online Library Training and Events calendar. As registration closed on March 23rd, sixty-eight students had already registered to start the class on April 2nd. I decided to essentially split the course in half, seeking thirty-five or so volunteers from this registration list to move to the self-paced prototype section. On March 28th, I sent the following email to all registered students and to those students who were on the waiting list:

You are currently registered (or on the waiting list) for the upcoming Basic Skills: Organization of Materials class.

Due to the number of students interested in the class and the Nebraska Library Commission's ongoing evaluation of the Basic Skills classes as a whole, we have decided to open a second self-paced section of the course.

As this is a new format and the first offering, we are asking for volunteers to enroll in this second section (with a limit of 35 students). The content between the two sections will not be different, but this new module will be self-paced, instead of the instructor-led format that you may be familiar with from other Basic Skills classes.

If you're interested in this second section, please reply to this email as soon as possible.

A couple minutes after this email was sent, I began receiving responses from students volunteering for the self-paced version. Below are some of their replies, which are included here because they speak to some of the reasons for implementing self-paced modules, specifically accommodating schedules that are more flexible and alternative continuing education formats:

- *“I can do the self-paced. I like to get everything done as quickly as possible any way.”*
- *“Yes, I would be interested! Thank you for providing that option!”*
- *“I am definitely interested in this class, I want to participate in the second section mentioned above.”*
- *“I am indeed interested. Thank you for this opportunity.”*
- *“I'd be happy to sign up for this option. I'm always late on my assignments anyway :)”*
- *“I volunteer! This will be my final course, and I am interested to see this new format!”*
- *“I would love to do the self-paced course if there's still opportunity!”*
- *“I am interested in taking the self-lead second section of this course! Thank you so much for being so accommodating!”*

Other responses were more neutral like the following examples, but still indicated that they would volunteer:

- *“Yes, I am interested in either course.”*
- *“Yes, I would be interested.”*

Finally, some responses were from volunteers but included questions:

- *“I would be interested in the self-paced module. There will still be someone if I have questions, right?”*
- *“I am flexible. I would really like to take this class so if all that is open to me is the self-paced option, I will gladly take it. I'm assuming that if I have any questions during the class time that I will be able to ask someone.”*
- *“I would be interested in volunteering for the Organization of Materials class! I assume that the credit received will be the same?”*
- *“I could go to the self-paced section if it would help you. Do we direct questions to you if we have them in that scenario?”*

There were students who didn't reply to my email, but there were no negative responses from anyone saying that they would not want to be in the self-paced section. Following up with these volunteer students, I explained that I would be the contact for any questions they may have during the course and that they would still receive two continuing education hours for completing the module. Thirty-four students were then enrolled in Ms. Badger's instructor-led course and thirty-four students were enrolled in the self-paced module. We decided to stagger the start dates between the two sections by a week with the instructor-led section starting on April 2nd and the self-paced module opening on April 9th. I hadn't announced this change in the initial call for volunteers as I didn't want to confuse students who weren't going to be in the self-paced section. As this was the first test of this new format, I decided to have the module close on May 4th. Future self-paced modules will remain open and available at any time, but I wanted to set a

timeframe on this prototype to give myself and Ms. Badger time to evaluate the initial completion data. On March 30th, I sent the following email to the volunteer students:

*Thank you so much for volunteering for the second self-paced section of **Basic Skills: Organization of Materials!** Again, due to the number of students and this new format, we have decided to stagger the start dates for the two sections. This self-paced module will open on Monday, April 9th. There will be no assignment due dates within the course, but all work will need to be completed by May 4th. I will be sending you all another email early next week with details about logging in and accessing the course. Although there isn't an instructor (technically) for this self-paced course, you are always welcome to contact me with any and all questions.*

The second email with login details was sent on April 6th:

*Welcome to **Basic Skills: Organization of Materials (Self-Paced Section)!** The class starts Monday, April 9th. Although there are no due dates within the course, all work needs to be completed by Friday, May 4th.*

- *Course website: moodletest.nlc.state.ne.us
 - *This is a different website from the other Basic Skills classes (but the same Moodle system).*
 - *The course isn't open until 8:00 a.m. on Monday morning.*
 - *Once you log in, you can start going through the lessons at your own pace. I'll be here to answer any questions and to review grades and things. You won't be left completely alone!**

- *Your user name is: (lower case, no spaces)*
- *Your initial password is: (case sensitive)*
 - *Even if you've taken other Basic Skills classes in the past, this is your password for *this class* since it's on its own right now.*
 - *Once you log in, you will be prompted to change this and you can change it to what you would like it to be.*

In designing and implementing this class, especially using the secondary testing website, there were concerns that accessing the new course may be a barrier or a challenge for some students. Attending to the possibility that Moodle may not be the permanent learning management system, due to changes in technology or changes in state/department needs, and the fact that students would be logging in to the self-paced modules at various points on their own, it was important to note any issues that this first group had logging in. With each of the Basic Skills classes, there are always one or two students who need their passwords reset or who try clicking the wrong section and contact me for help, so I was anticipating similar issues over the first few days as students started working on the course, especially as the module was on the second testing website and I did have to set up a second Moodle account for these volunteer students with different passwords, but kept their usernames the same. On the morning of April 9th, when the self-paced module opened, two students emailed that they were having trouble logging in and accessing the course. After following up with these two students, however, one of them replied that the course opened right up after she switched from her iPad to her computer, though I'm still unclear as to the reason it wouldn't work on her iPad as the

Moodle system should work on mobile devices. With the second student, I had asked her to provide her IP address so that our computer team could make sure she wasn't being blocked by the firewall. Later that afternoon, this student called from her library to let me know that her home computer was having problems outside of just accessing this class and that she was able to log on using her work computer. Even though this self-paced module was on a different website than other Basic Skills classes, I was encouraged that students were able to access the course without too much trouble.

The first student completed the course on Monday at 1:24 p.m. (about five hours after the course opened). She emailed me immediately after she finished:

I just completed the Organization of Materials Course (self-paced) and when I looked at grades it shows some areas as uncompleted. When I went back into it thinking I had missed an assignment or quiz I don't see anything that needs to be completed.

I enjoyed the course very much! It was very helpful to me! Thank you for all the work that went into it!

As I reviewed her course activity, I realized that the grading wasn't set up to be completely automatic, as I had hoped. I responded and let her know that she had completed the course and apologized about the grades not appearing correctly. This issue is explained in more detail in the next section, as this student wasn't the only one concerned. The following day, I posted an announcement in the course which was then emailed to all participants about the grading:

Just a quick note since a few people have asked about grading. Since this is the first test of the self-paced format, the grading isn't completely automatic yet. The grades will look a little off at first, but I'll be updating them as the class continues. Just work your way through the lessons and if you have any questions at all, please feel free to contact me.

Several students emailed me as they completed the course indicating that their grades, especially on the quizzes, weren't appearing. Some were worried that they hadn't completed the course successfully and others questioned if they needed to retake the quizzes multiple times to get a grade. I responded to each of these students, after reviewing the course activity, that they had successfully completed the class and apologized again for the grading errors.

On May 7th, I sent a final email to participants about finishing up the course and updating their continuing education records:

Just to let you all know, we'll be updating CE records this week. If you have any questions at all, please let me know. The grading isn't 100% automatic (which is something I'm definitely looking into for next time), so if you've done the quizzes and it still shows blank, don't worry. I can see your progress in detail from my side.

Thank you all so much for your willingness to try this new self-paced format! It's given us a lot of really great feedback as we continue working on the Basic Skills classes and what we can offer in the future.

The completion for this class was surprisingly similar to Ms. Badger's instructor-led section. Only two students didn't complete the self-paced module, but they also never started any of the activities. Looking at the feedback activity, I decided to keep similar questions as the instructor-led section as I was hoping to get some comparative data between the two sections and with the 2017 course. Twenty-nine students responded and were quite positive overall. The complete responses can be found in *Appendix J: Organization of Materials Self-Paced Module Student Feedback*.

CHAPTER 5 - EVALUATION & FUTURE DIRECTIONS

The initial data collected, evaluation, and future directions will be discussed in this chapter. This information is organized into the following sections: (1) reflections on the initial design process, (2) evaluation of the preliminary self-paced module, (3) changes to the existing Nebraska Public Librarian Certification Program, and (4) next steps and considerations.

Reflections on the Initial Design Process

As detailed in Chapter Three, much of early 2017 was spent on redesigning or editing the existing Basic Skills classes, focusing on the Organization of Information cataloging class with Ms. Badger, and building that first self-paced practice course. On June 13, 2017, after working and meeting with my committee advisor, Dr. Hamann, I had sent an update email to my doctoral committee. I had been feeling as though I was struggling over the previous few months as I just wasn't sure which direction would be ideal for this research that would be most relevant in practice or what would be most beneficial for the public librarians I was working with as I was evaluating the current continuing education offerings. As a scholarly practitioner in CPED, addressing complex problems of practice, the project concept sought to connect the work I had been doing with the instructors to update the Basic Skills classes with optimizing the professional development and addressing those research questions, as well as laid out a plan for moving forward through this dissertation stage of the research.

In that first project summary, I had initially set out to build a set of multiple self-paced modules. However, as I worked with Ms. Badger through the second half of 2017

on the Organization of Materials 2018 redesign and the outline for the self-paced module, I realized that I would have to examine the certification program in more depth and how this project would fit within the existing structure. Focusing on developing one introductory cataloging module to be tested with a small group of students on a secondary test website allowed me to experiment with some of the Moodle features, such as utilizing lesson paths, and to evaluate what worked well and what didn't in order to build a template for future self-paced modules. On January 8, 2018, I sent a second update to the committee, after discussions with Dr. Hamann:

This email is just a quick progress update as this new semester starts. Below is a link to the summary of my dissertation project that I've developed with the help of Dr. Hamann. I'm currently working with the Commission's Computer Team, trying to set up a separate Moodle website for the new module. As I started working on this project and in Moodle, I realized that I needed to focus on the larger structure of the certification program. If I build this module (and future ones), how would this affect the current database, CE credits, and the existing requirements? My project will now include a detailed outline of how specialized learning tracks would be set up, how the modules would fit, and how I will review and continue developing this program. This is a slightly different direction, but I believe having this plan in place will help implement these changes more effectively.

The design process then continued as described in Chapter Four and the testing of the self-paced module in April 2018. Two weeks after the self-paced module went online, I

sent Dr. Hamann another email on April 21st, as I was again concerned about the direction of this research. Part of this email, included here as a reflective memo on this design process, reads:

I'm really not happy with how the module turned out. People are finishing it and I'm getting positive feedback so far, but there's so much already I know needs changed.

And I'm really struggling with the idea of the specialized learning tracks, which were a big part of this. But I've been really trying to work out what exactly they would be (tracks for directors, children's librarians, technology, for example) and how they would work and with which classes...but then I think maybe they shouldn't be a part of this project right now. Maybe that needs to be part of the future directions? The idea of the self-paced modules is to enable instructors to build more advanced in-depth classes, so I don't really know if it makes sense for me to be trying to pre-plan what those would be. If that makes sense?

Two major concerns were identified in this reflective memo. The first, I had started making a list of changes that I would already need to make in the next iteration of this self-paced module. More details are described in the next section of this research, but these changes included the flow of the class, how the lessons were set up, and issues with the grading functions. Second, and more concerning, was that the concept of the specialized learning plans had been such an important part of my initial research plan and conversations up until this point. However, I was struggling to outline how they could be implemented and what that framework might look like within the certification program.

Taking a step back, I realized that I might need to let this idea go or at least reframe the conversation. The goal behind the specialized learning plans was to provide the most relevant learning opportunities to public librarians in their various professional roles in a clearly structured way. Looking back for a moment at the self-paced modules, one goal for them was to allow instructors time and resources to develop more advanced in-depth courses available throughout the year. As I was working on the specialized learning tracks, I found that I was trying to anticipate these future instructor-led classes and would then be repeating the current problem of only offering a limited variety of courses. If I hope to collaborate with instructors and emphasize their professional subject-expertise in different areas of librarianship, I shouldn't be telling them what classes or topics that they need to cover as "instructional design expertise and subject-matter competence are two different things, and even though it is possible for a person to play both roles, it is not necessary for an instructional designer to be a content expert in order to work effectively with the content expert" (Gagné, Wager, Golas & Keller, 2005, p. 26).

Instead of specialized learning tracks that are already written and designed, a better alternative that would still help students identify the most relevant courses, would be to utilize the competency frameworks and learning plans that are available features within Moodle (*Figure 5.1*). Competencies within Moodle can be assigned to different courses and activities in multiple courses (Moodle, 2017, Apr 24). Learning plans can also be assigned to multiple learners (Moodle, 2017, Aug 31). By utilizing these two features, I believe that I can set up a more effective version of the specialized learning

track idea that would allow greater collaboration and input from the instructors and continued feedback from the students.

For example, if I were to set up a learning plan for Youth Services with competencies based on those from the Association for Library Services to Children (2015) such as “conducts reference and readers’ advisory interviews to assist children and their caregivers with the identification and selection of materials and services, regardless of format and according to their interests and abilities” which falls under section II “Reference and User Service,” it would not be limited to just one class. Working with the instructor, advanced classes could be designed to meet this competency through activities like booktalks or developing social media strategies in different instructor-led classes. Learners would then be able to demonstrate this knowledge through participation in the classes that they feel are most relevant for their position. Classes wouldn’t have to be limited in what they covered each year, as they are currently, and no one class would have to cover everything.

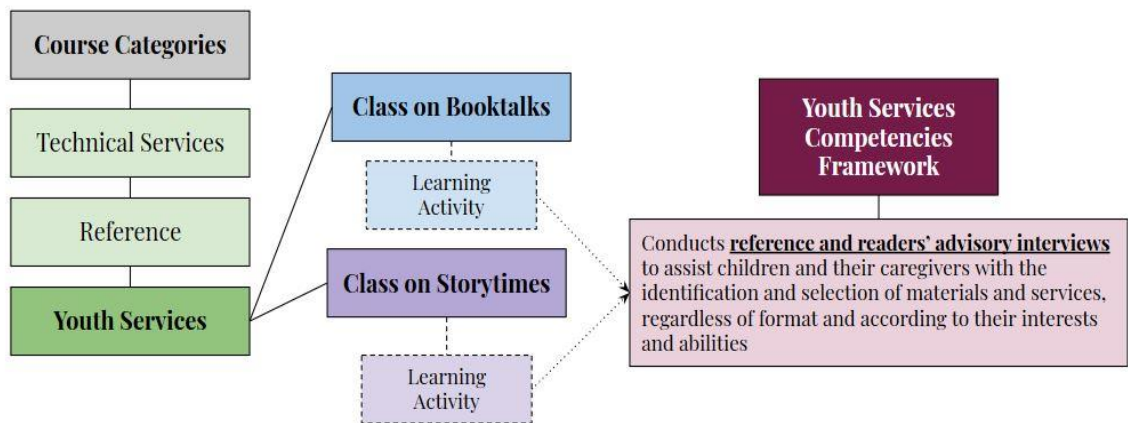


Figure 5.1: Course Categories and Competencies

Within Moodle, when creating a new course or editing the settings on an existing course, an administrator is able to assign “Course Categories.” Currently the Nebraska Library Commission has four categories: Basic Skills, Cataloging Certificate, Miscellaneous, and Public Access Computers: Management and Support. These categories could act as those specialized learning tracks in a way as the new advanced classes are developed and course activities are assigned competencies, I can identify to which category they would belong, such as, Technical Services, Technology, Management, or Young Adult Services. This will allow librarians to easily find relevant classes and modules, as well as help monitor progress within Moodle. As more courses develop and I continue the design process after this dissertation, the Nebraska Library Commission could easily offer additional “certificates.” For example, much like the already existing Cataloging Certificate program, once a student takes a set number of courses within one of the “Course Categories,” we could send them a certificate of completion in that specialized area which would then act as encouragement for participation as well as recognition of their professional development efforts.

Evaluation of the Preliminary Self-Paced Module

While evaluation, formal and informal (Williams, et al, 2011) has been ongoing with this research project as a scholarly practitioner through reflections and decisions made over the redesign of Ms. Badger’s class and throughout the development of the self-paced module, reflection on what went well and what didn’t work is important as I continue working on the second iteration of this self-paced cataloging module. First, librarians appreciated the self-paced opportunity for continuing education. They were

able to complete the module on their own time, working with their schedule without the need to go back and complete additional discussion board replies. From the administrative side, I did monitor the class and checked in continuously on student progress, especially as this was the first test of the module. The most time consuming detail once the module was live were the emails concerning grading and course completion. Once this issue is fixed in future iterations, my own time commitment should diminish as the modules become more automated.

Examining each of the lessons and topics, in “Lesson 1: Meeting Our Users’ Needs,” the first activity is the reflection questions. These were intended to help students start making the connection between how library users search or find information and the library catalog, as well as thinking about their own library. The assignment reads:

Write down a few notes or thoughts in response to the following questions:

- *Think about the library you work in (or visit most often). Is it organized in such a way as to enable users to find the items they need?*
- *Can patrons easily find the resources that answer their questions?*
- *Can they locate items that appeal to them? When a customer walks into your library, what are their options for finding the items they want?*

Student responses to these questions were similar to discussion board posts used in other existing Basic Skills classes and Ms. Badger’s concurrent section. Some students wrote brief one-sentence replies, while most of the students wrote longer, more detailed responses. Although not part of the questions, students identified several barriers that library users may encounter when finding information such as signage in the library or

information overload, as well as accessibility concerns. Many wrote about the physical layout of their spaces, acknowledging the importance of welcoming and knowledgeable staff who are willing to help anyone who walks in. Three example responses are included below.

Response #1:

- *I do believe that the library I work in is organized to enable the patrons to find what they are needing. While saying that, I do think there are some areas that could use a little 'update' to the organization. For example our DVD section is in an easy to find manner, but it has grown to the point that we are using the shelves at the very bottom and this makes it difficult for the older patrons to find what they are looking for. I happened upon an elderly gentleman just the other day on his hands and knees trying to read the titles of the DVD's on the bottom shelf. So we obviously need to rethink that section of the library. But as for the organization of the library, I do believe that it has a 'nice flow' to it from the minute they walk into the door.*
- *Patrons have access to our library catalog online and can see for themselves if we have what they are looking for. We give them their username and password for that when they become a library patron. The patrons can also use the public computers at the library to access the online catalog, or they can always ask me to help them!*
- *Absolutely! Each library will be different for what is popular among the patrons and our new releases are the hot tickets for us. We have a section for new*

releases and keep the display near the front desk. We have an area that we keep popular authors, such as a shelf for just John Grisham and a shelf for just James Patterson etc. Some genres that are well liked such as Christian fiction is kept in it's own area as well. All these areas (and others) are labeled or have signs. So when patrons enter the library they can always wander and find the items they want, or they can ask me, the checkout desk is one of the first things they see when entering the library. And again, there is always the online catalog that they can access either from home or using the library computers.

Response #2:

- *Yes, for the most part. Adult fiction items are alphabetical by author's last name. Adult non-fiction are by Dewey decimal system. Teen fiction is alphabetical by author's last name. Teen non-fiction are by subject & category, then by Title. Teen Graphic novels are by series or title order. Children's non-fiction are by Dewey decimal system. Children's chapter books are alpha by author. Children's easy readers are alpha by author. And, finally, paperbacks are alpha by author (with category stickers for Romance, Sci-fi, Mystery/Thriller, Novel, Western).*
- *Anything that is not a standard system is a hybrid created by patron request – sections are clearly marked & catalog locations reflect this system. New patrons, mostly, are able to find things easily – otherwise, we – the staff, are more than ready to assist.*

- *Usually, yes. Otherwise, they may utilize the shelf markings & signage, the electronic catalog & library staff (or, electronic resources & ILL). We, also, consider patron requests when purchasing new materials.*

Response #3:

- *We here at the public library do a good job to help readers find what they need. Could, we do better? Of course, but i'm not sure that is where our biggest challenges lie.*
- *We are blessed with many computers, and knowledgeable staff. I for one feel like they can.*
- *Our sections are clearly labeled, and we do what we can to provide good patron service.*

With these reflection questions, they are technically set up as “graded essays” which meant that I had to go in and make them as completed. I tried to set up Moodle in such a way that these essays wouldn’t be graded, but the assignment module required at least one point to be added. One benefit to this is that I can email students’ a copy of their essays which would allow them to keep their reflections (if they would like to). However, this issue contributed to the larger grading issues in this self-paced module and would require me to check for new submissions on a regular basis. Several students submitted more than one response at different times, most likely due to the fact that they weren’t sure if the first response was accepted before I had a chance to update the grade. I included reflection questions throughout the different topics, but this was the only set of questions that required students to respond as I wanted to test how they would work in

practice and was concerned they would become tiresome for students. The thoughtful responses were encouraging, but it became confusing when there were other reflections in other lessons that didn't have actual responses. In future iterations of this self-paced module, I'm looking at the Moodle system to find a way in which I can incorporate this kind of activity without requiring an actual grade, instead going back to the "Activity Completion" function. One option would be to use the discussion board format, but mark the activity complete when the student creates a new thread/post. In this way, students could see responses from other students if they would like to read about other libraries which has proven to be beneficial in the existing classes, but it wouldn't require replies to one another so the self-paced format would still be viable.

Moving into "Topic 2: Cataloging" we looked at the process of creating records and the online catalog displays. With Topic 1 and Topic 2, I tried to break down the content into bite-sized pieces, as students in Ms. Badger's course seemed to appreciate the "chunks" of information. However, with this "Lesson" feature of Moodle, I didn't utilize this in an optimal way. I broke the information down too far and I think it interrupted the flow of the class. This is especially apparent in "Lesson 2: Cataloging Guidelines" where there is only one page of content. This issue was due to my own misunderstanding of how Moodle lessons function. Navigation within these lessons becomes cluttered at times. There is a button on the bottom of each screen to go to the next page within a lesson. These buttons should read "continue" or "next." However, when I set them up, I used the title of the next page. In this "Lesson 2," for example, if students click on the grey button that says "The Puzzle of Content," it takes them to the

“Congratulations - end of lesson” page (*Image 5.1*). There is also a blue link below this that says “Lesson 3: The Puzzle of Content” with a small blue arrow. Which one will students click on? Were they confused with this navigation? In addition, there are links for the previous lesson, to review the lesson, to return to the course homepage, and to view grades. The problem of too much on the screen is being repeated with these lessons.

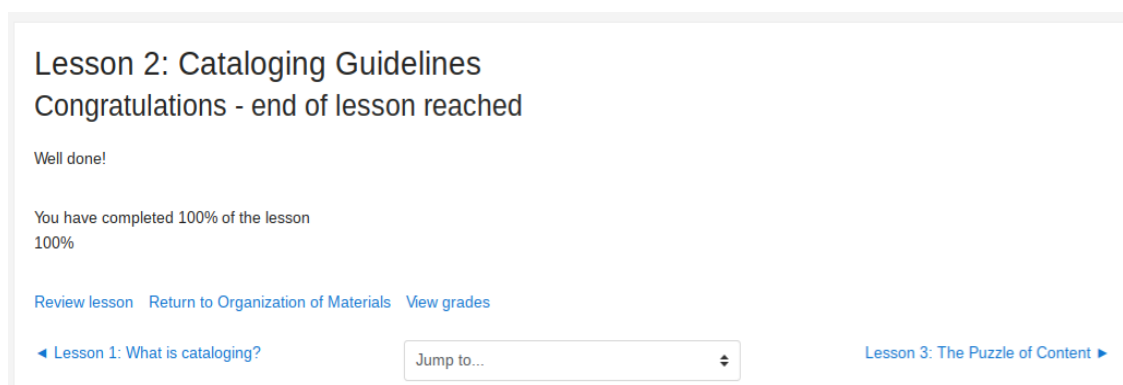


Image 5.1: Lesson Navigation Screenshot

Another navigation concern appears when a student navigates away from the lesson page and tries to go back, they encounter a message asking them if they want to start back at the last page they saw (*Image 5.2*). While this may not be a major issue for most students, it could be confusing if they click one of those links that they didn't mean to or forget what page they were looking at. It also doesn't encourage easy navigation between pages within lessons.

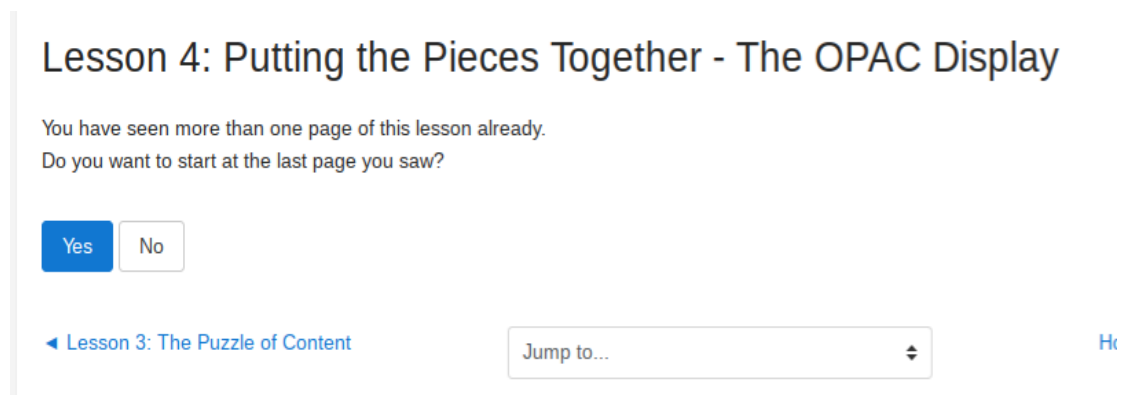


Image 5.2: Lesson Review Screenshot

Starting with “Topic 3: MARC,” I did try longer lessons and renamed the navigation buttons to “next” and “end” which was much more clear than the previous two topics. This topic also included the “How Well Do You Know MARC?” pre/posttest that challenged many students in both Ms. Badger’s class and this self-paced module. I set this quiz to allow multiple attempts and reviews, but this prevented students from actually getting grades as the system was waiting until the student made all five attempts and would then take the highest grade of those attempts. This would be an easy fix for the next iteration. The pre-test really should only have one attempt if we are trying to gauge what students know and there’s no reason the post-test should need five attempts. I have to ask if we are really capturing student learning at that point. Discussing this assignment with Ms. Badger, we have already decided that this quiz needs to be redesigned. Students were more focused on the graded points of the quiz, rather than recognizing the importance of becoming more familiar with the terminology and basic structures of MARC so that they would be able to have knowledgeable discussions with their library vendors, their catalogers, directors, board members, or other librarians. The questions are too technical for the content covered. We’re asking students to become more familiar

with introductory cataloging concepts and understand basic vocabulary, but this quiz asks students to have a deeper knowledge of MARC records in order to identify/recognize the different fields, subfield codes, tags, indicators, delimiters, and subfields within a MARC21 record without any other context. Implementing a pre/posttest can be a useful evaluation tool, but it may be more beneficial to assess student learning if there was a pre/posttest for the entire module, rather than for a single short lesson in this context. The quizzes in “Topic 5” and “Topic 6” worked well, but inconsistencies in presentation need to be fixed. The “Topic 5” quiz has all the questions listed on a single page while “Topic 6” has one question per page. With only four questions, it makes more sense for the questions to appear at once. The overall average of the “Topic 5” quiz was 3.63 out of 4.00 and for the “Topic 6” quiz it was 3.48 out of 4.00.

With the second iteration of the self-paced module, to open on June 18th, the grading mechanics are the first priority to fix. Secondly, expanding on the MARC topic with a redesigned quiz is necessary. Looking at the feedback from Ms. Badger’s course and how the lesson activities worked on this self-paced module, I am shifting the self-paced content back to “Pages” rather than trying to use the “Lessons” feature. Nine students have registered for this second class. Their feedback will be evaluated and compared to the first iteration when the class closes on July 13th. The smaller number of students in this class won’t provide much feedback to work with, but hopefully will capture if the lesson flow and automatic grading has improved, as well as the removal of the MARC pre/posttest before I move forward with the next cycle of redesign which will

include setting up the learning frameworks within Moodle and course competencies, in addition to changes within the class itself focusing on evaluation and learning activities.

Understanding which activities and content worked and what didn't work well will ensure a more effective redesign. As this self-paced module acted as a prototype for this kind of self-paced professional development, undergoing several redesign cycles will then allow me, as the Continuing Education Coordinator, to develop a working general template that can be used in the development of the future self-paced modules.

Changes to the Existing Nebraska Public Librarian Certification Program

The existing Nebraska Public Librarian Certification program outside of just one Basic Skills class needs to be considered if this self-paced professional development is to be a successful option. What, if any, changes need to be made to the system for these kind of self-paced modules to be implemented? Currently, all continuing education hours and the completion of Basic Skills classes is tracked through Bibliostat, the in-house database used by the Nebraska Library Commission staff. After each class ends, the instructor reports the grades to myself and to the Library Development Staff Assistant, who then updates the individual librarians' continuing education record to reflect completion. Each class is worth two continuing education hours. Talking with Linda and the previous Library Development Director, they both reflected on 2011 when the classes first moved to Moodle. The previous Continuing Education Coordinator had to figure out how to transfer the "old" in-person workshop credits, since there were only four of them. So, if a librarian took two of the in-person workshops, would they have to take all of the "new" classes online? Or which classes would they get credit for? In 2010, in

collaboration with a committee of System Directors and librarians, the previous Continuing Education Coordinator outlined which of the in-person workshops transferred into the current Basic Skills classes (*Table 5.1*).

Table 5.1

Transition Table from In-Person Workshops to Online Basic Skills Classes

Students who have taken in “old” Basic Skills:	Will get credit for having taken, in New Basic Skills:
Collection Development	<ul style="list-style-type: none"> • Intellectual Freedom and the Core Values of Librarianship • Collection Management • Library Policy • The Community and The Library
Public Service	<ul style="list-style-type: none"> • Customer Service • Reference • Readers Advisory • Programming and Outreach
Organization of Materials	<ul style="list-style-type: none"> • Organization of Materials
Library Administration	<ul style="list-style-type: none"> • Management & Supervision • Leadership • Library Governance • Library Finance • Communication

Vern Buis, Director of Computing Services, adapted the Bibliostat database with the new classes. Image 5.3 shows how the courses appear in the database (on the staff side) and

the checkmarks that appear when a librarian completes each of the Basic Skills classes currently.

The screenshot displays a web interface for tracking continuing education. It is divided into three main sections, each with a header and a list of items, each preceded by a checked checkbox (✓).

- Basic Skills (Required):**
 - Collection Management
 - Community & Library
 - Communications
 - Customer Service
 - Intellectual Freedom
 - Organization of Materials
- Basic Skills Electives:**
 - Leadership
 - Library Finance
 - Library Governance
 - Library Policy
 - Children & Youth
 - Management/Supervision
 - Programming / Outreach
 - Readers Advisory
 - Reference
 - Library Technology
- Old Basic Skills:**
 - Administration (Exempted)
 - Collection Development (Exempted)
 - Organization (Exempted)
 - Public Service (Exempted)

Image 5.3: Omnibase Course List Screenshot

As students successfully complete each class, the continuing education hours are added to their record and these boxes are automatically checked off. If they've taken the "old" Basic Skills in-person workshop, they didn't have to retake any of the online classes. Again, if a librarian enrolls in the certification program and has a professional certificate or degree in Library Science, they also are exempted from taking the Basic Skills classes, so the boxes on this database screen will show as completed. This screen is useful for Nebraska Library Commission staff members when talking with librarians about their continuing education requirements, so we can easily see what classes they've taken without having to scroll through their entire continuing education activity record which includes all webinars, conferences, and other events that they may have attended. *Image 5.4* shows how this information appears to librarians when they look up their continuing education records online. This list pulls information directly from the Omnibase database and details which classes they've taken and which they still have left. The online CE Record Review is the primary method for librarians to keep track of their certification

period, their continuing education activities, and their completion progress with the Basic Skills classes.

Basic Skills Credits - **Required** Courses:

- ✓ **Communications** (Attended: 1/22/2018)
- ✓ **Customer Service** (Attended: 2/12/2018)
- ✓ **Organization of Materials** (Attended: 4/2/2018)

Required Basic Skills Courses Needed:

- Collection Management
- Community & Library
- Intellectual Freedom

Basic Skills Credits - **Elective** Courses:

- ✓ **Library Governance** (Attended: 3/5/2018)
- ✓ **Readers Advisory** (Attended: 4/23/2018)
- ✓ **Library Technology** (Attended: 3/19/2018)

You need to attend 4 Elective Basic Skills Course(s) from the following list to fulfill the elective requirements:

- Leadership
- Library Finance
- Library Policy
- Children & Youth
- Management / Supervision
- Programming / Outreach
- Reference

Image 5.4: Student CE Record Example

While editing the database again to include new self-paced modules is possible, there is some reluctance to do so as it could add more confusion to both staff and librarian screens and the repeated problem of understanding which self-paced modules count for which classes. In this current redesign process, communication about the self-paced modules and the future development of advanced instructor-led classes will need to be clear and easily understood as the classes are marketed across the state.

The simplest solution that would allow this research to continue immediately seems to be to create a self-paced module for each of the six currently required courses:

Intellectual Freedom and Core Values of Librarianship, Communication, Organization of Information, Community and the Library, Collection Management, and Customer Service. By doing so, this would eliminate any confusion and any need for additional database alterations. Credits for the classes would transfer straight across to the self-paced modules which would be beneficial especially as it will take time to create future self-paced modules and this would help ensure a smooth transition. After these six modules are made available, I would then start working on building a self-paced version of the elective classes: *Leadership, Library Finance, Library Governance, Library Policy, Library Services to Children and Youth, Library Technology, Management and Supervision, Programming and Outreach, Readers' Advisory, and Reference* while beginning collaborations with instructors to develop advanced classes. The requirements for the certification program would then not need to change and the advanced instructor-led classes would then be supplemental, available to Nebraska librarians throughout the year without requiring a change to the database or to the certification program itself. In this way, we could add new classes in different topic areas without a permanent change to the database and librarians would still earn their continuing education credits. Class offerings and schedules could be updated every year depending on identified needs from the instructors or myself in my role as the Continuing Education Coordinator.

Next Steps and Considerations

I remain optimistic about the development of self-paced modules along with more advanced instructor-led courses for the professional development of public librarians in Nebraska, though I acknowledge that there are a number of concerns that must be

addressed moving forward. Overall, I believe that the self-paced module was successful and that many of the frustrations stem from system settings and inconsistencies within lessons. Moving forward with this research, I have opened student registration for a second testing phase of the self-paced module to begin on June 18th. The course has been renamed as Introduction to Cataloging and I have already started updating the self-paced module to address the concerns discussed in this chapter.

The Fortieth Anniversary Commemorative Booklet from the American Educational Research Association Division I (2011) includes documents and reports from the division and the association that illustrate the division's mission to "developing a discipline of education in the professions" and mandate to "become a division that addressed issues of practice and scholarship across the professions" (p. 5). Within this document, library science is mentioned once on page thirty-four in a citation from a document published in 1980, "Division I programs at recent annual meetings have included presentations by researchers in most of the health professions as well as engineering, library science, law, and other professional areas." Not only does the research discussed in this dissertation benefit the professional development for Nebraska Public Librarians, but this problem of practice addresses a larger, national conversation for Continuing Education Coordinators and the librarian profession.

Following the annual Continuing Education Coordinators Forum in 2016, a committee of state Continuing Education Coordinators began working on an idea for an online National Library Training Center with weekly online meetings over the last year. This National Library Training Center would be a central repository of online learning

content from all participating states available to librarians nationwide. Each state will have their own organizational access for state-specific training and access to other content. Working with these other Continuing Education Coordinators, we have chosen Moodle for the learning management system with a projected date of January 2020. Currently, our committee is working on the policies, procedures, and standards for this project. A letter to the Chief Officers of State Agencies was recently sent out asking these Chief Officers for insight and feedback to help shape policies as we move forward. Having this National Library Training Center available would mean that any self-paced modules or other content developed in Nebraska could be uploaded to this national training center to be shared with librarians to improve their practice and knowledge even outside of the state, as well as the opportunity for Nebraska librarians to engage in their practice on a national level.

REFERENCES

- AERA. (2011). Coming of age: Developing a community of educators in the professions. [PDF]. Retrieved from <http://www.aera.net/Portals/38/docs/Divisions/DivisionI/40th%20Anniversary%20Final%202011.pdf>
- AERA. (2018). *Education in the professions (I)*. Retrieved from <http://www.aera.net/Division-I/Education-in-the-Professions-I>
- ALCTS. (2017). *Core competencies for cataloging and metadata professional librarians*. [PDF]. Retrieved from <https://alair.ala.org/bitstream/handle/11213/7853/Core%20Competencies%20Cataloging%20Metadata%20Professional.pdf?sequence=1&isAllowed=y>
- American Library Association. (2008). *Professional ethics*. Retrieved from <http://www.ala.org/tools/ethics>
- American Library Association. (2009). *ALA's core competences of librarianship*. [PDF]. Retrieved from <http://www.ala.org/educationcareers/sites/ala.org.educationcareers/files/content/careers/corecomp/corecompetences/finalcorecompstat09.pdf>
- Association for Library Service to Children. (2015). *Competencies for librarians serving children in public libraries*. Retrieved from <http://www.ala.org/alsc/edcareers/alsccorecomps>
- Baasanjav, U. (2013). Incorporating the experiential learning cycle into online classes. *MERLOT Journal of Online Learning and Teaching*, 9(4), 575-589.
- Bannan-Ritland, B. (2003). The role of design in research: The integrative learning design framework. *Educational Researcher*, 32(1), 21-24.
- Blakiston, R. (2011). Building knowledge, skills, and abilities: Continual learning in the new information landscape. *Journal of Library Administration*, 51(7-8), 728-743, doi:10.1080/01930826.2011.601272
- Bond, P. (2013). Massive open online courses (MOOCs) for professional development and growth. In C. Smallwood, K. Harrod, & V. Gubnitskaia (Eds.), *Continuing education for librarians: Essays on career improvement through classes, workshops, conferences, and more*. (pp. 28-34). Jefferson, NC: McFarland & Company, Inc.
- Boyd, M. (2012). From the comfort of your office: Facilitating learner-centered continuing education in the online environment. *Cataloging & Classification Quarterly*, 50(2-3), 189-203.

- Brookfield, S. (1986). *Understanding and facilitating adult learning*. San Francisco, CA: Jossey-Bass, Inc.
- Britt, M. (2015). How to better engage online students with online strategies. *College Student Journal*, 49(3), 399-404.
- Campbell, P. (2014). Modifying ADDIE: Incorporating new technologies in library instruction. *Public Services Quarterly*, 10(2), 138-149, doi:10.1080/15228959.2014.904214
- Carver, R., King, R., Hannum, W., & Fowler, B. (2007). Toward a model of experiential e-learning. *MERLOT Journal of Online Learning and Teaching*, 3(3), 247-256.
- Cobb, P., Confrey, J., diSessa, A., Lehrer, R., & Schauble, L. (2003). Design experiments in educational research. *Educational Researcher*, 32(1), 9-13.
- Collins, A. (1992). Toward a design science of education. In E. Scanlon & T. O'Shea (Eds.), *New Directions in Educational Technology*. Springer-Verlag, Berlin. 15-22.
- Carnegie Project on the Education Doctorate. (n.d.). *About us*. Retrieved from <https://www.cpedinitiative.org/general/custom.asp?page=AboutUs>
- Dale, J. (2017). *Evaluation of the 2012-2017 library services and technology act plan*. [PDF]. Retrieved from http://nlc.nebraska.gov/aboutus/LSTA_20122017_PLAN%20EVALUATION.pdf
- Dalston, T., & Turner, P. (2011). An evaluation of four levels of online training in public libraries. *Public Library Quarterly*, 30(1), 12-33.
- Dewey, J. (1933). *How we think*. Boston, MA: D.C. Heath and Company.
- Downes, S. (2010). New technology supporting informal learning. *Journal of Emerging Technologies in Web Intelligence*, 2(1), 27-33. doi:10.4304/jetwi.2.1.27-33
- Duncan-Howell, J. (2010). Teachers making connections: Online communities as a source of professional learning. *British Journal of Educational Technology*, 41(2), 324-340.
- Dunkin, P. (1962). The development of technical services training. *Journal of Education for Librarianship*, 2(3), 123-131.

- Francis, M. (2013). How to successfully take an online class. In C. Smallwood, K. Harrod, & V. Gubnitskaia (Eds.), *Continuing education for librarians: Essays on career improvement through classes, workshops, conferences, and more*. (pp. 35-41). Jefferson, NC: McFarland & Company, Inc.
- Gagné, R., Wager, W., Golas, K., & Keller, J. (2005). *Principles of instructional design* (5th ed.). Belmont, CA: Wadsworth Cengage Learning.
- Gee, J. (2005). Learning by design: Good video games as learning machines. *E-Learning*, 2(1), 5-16.
- Goldie, J. S. (2016). Connectivism: A knowledge learning theory for the digital age?. *Medical Teacher*, 38(10), 1064-1069. doi:10.3109/0142159X.2016.1173661
- Guder, C. (2010) Patrons and Pedagogy: A Look at the Theory of Connectivism. *Public Services Quarterly*, 6:1, 36-42, doi:10.1080/15228950903523728
- Haley, C. (2008). Online workplace training in libraries. *Information Technology and Libraries*, March, 33-40.
- Hall-Ellis, S. (2008). Cataloger competencies...What do employers require? *Cataloging & Classification Quarterly*, 46(3), 305-330, doi:10.1080/01639370802034565
- Hartree, A. (1984). Malcolm Knowles' theory of andragogy: A critique. *International Journal of Lifelong Education*, 3(3), 203-210.
- Hendrix, B. (2017). Case study: Online continuing education for new librarians. *Journal of Library & Information Services in Distance Learning*, 11(3-4), 346-354. doi: 10.1080/1533290X.2017.1404545
- Holton III, E., Swanson, R., & Naquin, S. (2001). Andragogy in practice: Clarifying the andragogical model of adult learning. *Performance Improvement Quarterly*, 14(1), 118-143.
- Huang, H. (2002). Toward constructivism for adult learners in online learning environments. *British Journal of Educational Technology*, 33(1), 27-37.
- Huang, X., & Hsiao, E. (2012). Synchronous and asynchronous communication in an online environment: Faculty experiences and perceptions. *Quarterly Review of Distance Education*, 13(1), 15-30.
- Hull, B. (2009). Distance education: Online courses expand for library personnel. *Journal of Hospital Librarianship*, 9(3), 325-330, doi:10.1080/15323260903015913

- Joseph, D. (2004). The practice of design-based research: Uncovering the interplay between design, research, and the real-world context. *Educational Psychologist*, 39(4), 235-242.
- Kolb, D. (1984). *Experiential learning*. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Knowles, M. (1950). *Informal adult education: A guide for administrators, leaders, and teachers*. New York, NY: Association Press.
- Knowles, M. (1977). Adult learning processes: Pedagogy and andragogy. *Religious Education*, 72(2), 202-211.
- Knowles, M. (1980). My farewell address: Andragogy – no panacea, no ideology. *Training and Development Journal*, 34(8), 48-50.
- Knowles, M. (1983). Malcolm Knowles finds a worm in his apple. *Training and Development Journal*, 37(5), 12-20.
- Ladell-Thomas, J. (2012). Do-it-yourself information literacy: Self-directed learning at a distance. *Journal of Library & Information Services in Distance Learning*, 6(3-4), 376-386. doi:10.1080/1533290X.2012.705168
- Lalonde, C. (2011). Courses that deliver: Reflecting on constructivist critical pedagogical approaches to teaching online and on-site foundations courses. *International Journal of Teaching and Learning in Higher Education*, 23(3), 408-423.
- Lynn, V., Bose, A., & Boehmer, S. (2010). Librarian instruction-delivery modality preferences for professional and continuing education. *Journal of the Medical Library Association*, 98(1), 57-64. doi:10.3163/1536-5050.98.1.017
- Mason, M. (2009). WebJunction: A community for library staff. *Journal of Library Administration*, 49, 701-705, doi:10.1080/01930820903260507
- Merriam, S. (2001). Andragogy and self-directed learning: Pillars of adult learning theory. *New Directions for Adult and Continuing Education*, 89, 3-13.
- Merriam, S., & Bierema, L. (2013). *Adult learning: Linking theory to practice*. San Francisco, CA: Jossey-Bass.
- Merriam, S., Caffarella, R., & Baumgartner, L. (2012). *Learning in adulthood: A comprehensive guide*. San Francisco, CA: Jossey-Bass.
- Miller, M. D. (2014). The psychology of computing. *Minds online: Teaching effectively with technology* (pp. 42-63). Cambridge, MA: Harvard University Press.

- Moodle. (2018, Jan 31). *Blocks*. Retrieved from <https://docs.moodle.org/35/en/Blocks>
- Moodle. (2017, Apr 24). *Competency frameworks*. Retrieved from https://docs.moodle.org/35/en/Competency_frameworks
- Moodle. (2017, Aug 31). *Learning plans*. Retrieved from https://docs.moodle.org/35/en/Learning_plan
- Moulaison, H. (2012). A new cataloging curriculum in a time of innovation: Exploring a modular approach to online delivery. *Cataloging & Classification Quarterly*, 50(2-3), 94-109.
- Nebraska Library Commission. (n.d.) Nebraska Library Commission overview. Retrieved from <http://nlc.nebraska.gov/aboutus/>
- Nebraska Library Commission. (2017). *Public librarian certification*. Retrieved from <http://nlc.nebraska.gov/CE/libcert.aspx>
- Nebraska Library Commission. (2018). *NCompass Live*. Retrieved from <http://nlc.nebraska.gov/NCompassLive/>
- Neubauer, B., Hug, R., Hamon, K. & Stewart, S. (2018) Using personal learning networks to leverage communities of practice in public affairs education, *Journal of Public Affairs Education*, 17:1, 9-26, doi:10.1080/15236803.2011.12001625
- O'Neill, J. (2016). Weeding with ADDIE: Developing training for deselection at an academic library. *Reference & User Services Quarterly*, 56(2), 108-115.
- Park, J. & Tosaka, Y. (2017). Advancing professional learning in libraries: An exploratory study of cataloging and metadata professionals' experiences and perspectives on continuing education issues. *Cataloging & Classification Quarterly*, 55(3), 153-171.
- Peeters, J., De Backer, F., Buffel, T., Kindekens, A., Struyven, K., Zhu, C., & Lombaerts, K. (2014). Adult learners' informal learning experiences in formal education setting. *Journal of Adult Development*, 21, 181-192.
- Pine, G. (2009). *Teacher action research: Building knowledge democracies*. SAGE Publications, Inc., Thousand Oaks, CA.
- Pinkston, J. (2009). Wanted: A revolution in library continuing education. *Public Library Quarterly*, 28(4), 295-311, doi:10.1080/01616840903333774

- Pratt, D. (1993). Andragogy after twenty-five years. In S. Merriam (Ed.), *An Update on Adult Learning Theory* (pp. 15-23). San Francisco, CA: Jossey-Bass.
- Reinbold, S. (2013). Using the ADDIE model in designing library instruction. *Medical Reference Services Quarterly*, 32(3), 244-256, doi:10.1080/02763869.2013.806859
- Ruey, S. (2010). A case study of constructivist instructional strategies for adult online learning. *British Journal of Educational Technology*, 41(5), 706-720. doi:10.1111/j.1467-8535.2009.00965.x
- Russell, J. (1942). Professional education in librarianship. *Association for Library and Information Science Education (ALISE)*, June 21-25, 11-22.
- Schadt, E. M. (2016, Oct 13). *2016 WebJunction Satisfaction Survey Results*. Retrieved from <http://www.webjunction.org/news/webjunction/webjunction-satisfaction-survey-2016-results.html>
- Sandars, J. & Langlois, M. (2006). Online collaborative learning for healthcare continuing professional development: Lessons from recent literature. *Education for Primary Care*, 17, 584-592.
- Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, 2(1), 3-10.
- Swan, D., Grimes, J. & Owens, T. (2013). *The State of Small and Rural Libraries in the United States. Research Brief series, no. 5*. Washington, DC: Institute of Museum and Library Services.
- Swanson, T. (2006). ADDIE in the library: Building a model for the information age library. *Community & Junior College Libraries*, 13(2), 51-61, doi:10.1300/J107v13n02_08
- Terrill, L. (2014). Catalogers' perceptions and use of social media and conventional information sources for professional development. *Cataloging & Classification Quarterly*, 52(2), 181-228. doi:10.1080/01639374.2013.851137
- Tracy, D., & Morrow, L. (2012). *Lenses on reading*. New York, NY: The Guilford Press.
- Transue, B. (2013). Connectivism and Information Literacy: Moving From Learning Theory to Pedagogical Practice, *Public Services Quarterly*, 9:3, 185-195, doi:10.1080/15228959.2013.815501

- Varlejs, J. (2000). The first congress on professional education: An agenda for continuing education, *Journal of Education for Library and Information Science*, 41(2), 143-146.
- Wagner, R. (2017). *Library services and technology act five-year plan 2018-2022*. [PDF]. Retrieved from <http://www.nlc.state.ne.us/aboutus/NebraskaFiveYearPlan2018-2022.pdf>
- Wang, F. & Hannafin, M. (2005). Design-based research and technology-enhanced learning environments. *Educational Technology Research & Development*, 53(4), 5-23.
- Williams, D., South, J., Yanchar, S., Wilson, B., & Allen, S. (2011). How do instructional designers evaluate? A qualitative study of evaluation in practice. *Educational Technology Research & Development*, 59, 885-907, doi:10.1007/s11423-011-9211-8
- Yates, J. (2014). Synchronous online CPD: Empirical support for the value of webinars in career settings. *British Journal of Guidance & Counselling*, 42(3), 245-260.
- Young, J. (1987). The teaching of cataloging education or training. *Cataloging & Classification Quarterly*, 7(4), 149-163.

APPENDICES

Appendix A: City of Omaha Library Specialist Job Descriptions

Classification Title	LIBRARY SPECIALIST
Title Detail:	Part-time Library
Date Posted:	12-Jan-2017
Education and Experience	(The knowledge, skills, abilities, and/or personal characteristics in this section may be acquired through, but are not limited to, the following combination of education and experience.) Two years of college level education AND Minimum of one year of experience working in a library
<p>PREFERRED QUALIFICATION</p> <p>Bachelor's Degree.</p> <p>Fluency in Spanish, Sudanese languages, or other languages.</p>	
Special Qualifications:	<p>Must register for Nebraska Public Librarian Certification through the Nebraska Library Commission within 30 days of the hiring date. Must complete necessary training requirements to keep certification current while employed by the Omaha Public Library.</p> <p>Must be able to transport oneself or coordinate transportation to worksites throughout the City during the course of the workday.</p> <p>Must be able to work flexible schedules, including evenings and weekends.</p>
Salary Range:	\$19.81 Hourly
Benefits	Not applicable for part-time/seasonal employment
Who Can Apply	Any person who meets the qualifications and other requirements described in this posting.
How To Apply:	Completed City of Omaha employment applications must be submitted using the on-line application from the City website. It is the sole responsibility of the applicant to check and ensure that any and all required application materials and supplemental forms are received by the City of Omaha Human Resources Department. You may confirm receipt of any materials and forms by contacting the Human Resources Department. If the materials are not received in the Human Resources Department, they will not be considered. There will be no exceptions to this rule. If you do not meet the requirements at the time of this posting,

	once you do meet the requirements you may apply when it is posted again.
Contact Points	Travis Wilcox, 402-444-4844
Required Forms	On-line Application: including Applicants Authorization to Release Information, the Confidential Applicant Log (Record Keeping Only) and ADA notice.
Examination Information	Not applicable for part-time/seasonal employment
Veteran's Points	Not applicable for part-time/seasonal employment
Nature of Work	This is para-professional library work performing skilled library duties and providing excellent customer services. An incumbent in this position works both independently and as part of a team, with guidance from a supervisor.
Essential Functions:	<p>(Any one position may not perform all of the duties listed, nor do the listed examples include all of the duties that may be performed in positions allocated to this class.)</p> <p>Answers patrons' reference questions online, over the telephone, and in person by searching online catalogs, subscription databases, the Internet, and print materials.</p> <p>Trains and assists library customers in the use of the library's online and printed resources.</p> <p>Checks books in and out and issues library cards.</p> <p>Advises readers, recommending authors, titles, and topics of interest.</p> <p>Assists in the selection and replacement of library materials.</p> <p>Conducts story times, programs, and tours for a variety of age groups.</p> <p>Assists in planning special programs, arranging publicity for special events, composing and disseminating informational materials, and coordinating the efforts of public relations and advertising firms retained to promote planned events.</p> <p>Enters catalog data into the library online database so that materials may be searched and identified through the library automation system.</p> <p>Provides work direction to clerical personnel, library pages, and volunteers.</p>

Keeps informed of developing library practices and issues.

Provides outreach services to targeted groups such as schools, daycare facilities, senior centers, and businesses.

Performs other related duties as assigned or as the situation dictates within the scope of this classification.

Knowledge,
Skills, And
Abilities

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of library principles, practices, techniques, and services.

Knowledge of library reference resources and tools.

Knowledge of productivity software including Microsoft Word and Excel.

Skill in maintaining effective relationships with customers of all ages and backgrounds.

Skill in the use of tact and diplomacy when interacting with difficult customers.

Skill in the use of computers and related technology.

Ability to support and provide equitable service to all customers.

Ability to maintain customer confidentiality

Ability to use library principles, methods, and techniques in collection, development, cataloging, classification, circulation, programming, and reference services.

Ability to use and explain the use of library tools and facilities.

Ability to communicate verbally, in person, over the telephone, and electronically to answer reference questions and provide reading guidance.

Ability to understand oral or written instructions.

Ability to adhere to safety policies, procedures and guidelines.

Ability to stand, walk, and bend from 76 to 100% of the time; reach, stoop, squat, crouch and push from 51 to 75% of the time; and to climb, balance, kneel, crawl, pull and sit up to 25% of the time.

Ability to use up to fifty (50) pounds of force up to 33% of the time, up to twenty (20) pounds from 34 to 66% of the time, and up to ten (10) pounds of force from 67 to 100% of the time to move objects.

Appendix B: Example MARC Assignment from In-Person Workshop

Basic Skills / Spring 2002
Organization of Materials

Create an original MARC record (Assignment #8)

Field	Tag	Ind's.	Subfields
LCCN	010		#a _____
ISBN	020		#a _____ #c S _____
Dewey number	082		#a _____ #b _____
Main Entry	1		#a _____ #q _____ #d _____
Title/Statement of responsibility	245		#a _____ #b _____ #c _____
Alternate Title	246		#a _____ #b _____
Edition	250		#a _____
Publication Information	260		#a _____ #b _____ #c _____
Physical Description	300		#a _____ #b _____ #c _____
Series Title	440	0	#a _____; #v _____
Note	5		#a _____
Note	5		#a _____

45

Appendix C: Continuing Education Coordinator Job Description

Description

Provide leadership in statewide provision, planning, evaluation, and coordination of library continuing education and training programs and services. Offer consulting services as a member of the Library Development team.

Examples of Work

- Participate in the statewide planning and coordination of library-related continuing education and training programs.
- Work with the regional library Systems and libraries (especially public, academic, and institutional) to ascertain their needs and to plan accordingly.
- Provide consulting services statewide related to continuing education, but also in other library-related subject areas.
- Possess knowledge of, or be willing to gain knowledge of, both traditional and emerging areas in libraries such as new technologies, and be able to share information about those areas with others.
- Administer and coordinate the Basic Skills training program for public librarians, occasionally teaching a number of these courses.
- Administer the Public Librarian Certification program for Nebraska.
- Administer the Public Library Board Certification program for Nebraska.
- Work with other Library Development staff, and other Nebraska Library Commission staff to ensure that the Public Librarian Certification and the Public Library Board Certification programs meet the needs of the state's public libraries.
- Coordinate the development and maintenance of the Library Board Handbook and the Public Library Directors Guidebook, keeping these up-to-date as needed.
- Explore different modalities for delivery of content for continuing education, sharing this knowledge with others and employing it as needed.
- Work effectively with a wide variety of people both inside and outside the library field.
- Plan, coordinate, and/or provide for the acquisition of online continuing education statewide including contracts with national content and access providers (e.g., SkillSoft, Moodle).

Qualifications / Requirements

REQUIREMENTS: Masters degree in library science from an American Library Association Accredited program AND at least three years of experience in professional library/information work in a specialized area.

OTHER: Valid driver's license or able to provide independent authorized transportation.

Appendix D: Basic Skills Syllabus

Basic Skills: Organization of Materials

Format: Online

CE hours: 2

Instructor: Allison Badger

Course Description:

Welcome to Organization of Materials, one of the requisite Basic Skills courses! After taking this course, participants will:

- be able to determine how a library collection is organized and why it is organized that way.
- be able to assign appropriate subject headings to an item
- be able to determine the best classification number for an item.
- understand what a MARC record is and how MARC records are used in your library's catalog.
- have a general knowledge of developments in cataloging.

Topics

- Organizing the Library
- Cataloging
- MARC
- Authority Files
- Describing Subjects
- Assigning Classification Numbers

Practices and Policies:

Attendance

This is an asynchronous online course. Your physical/virtual attendance is not required at any specified times, but there are due dates for assignments which must be met.

Class participants read or view materials, discuss ideas in an online forum, and complete assignments online. If you encounter any issues completing assignments (e.g., religious holidays, illness, family emergencies, work requirements), please contact the instructor to discuss the situation as soon as possible to make arrangements.

News Forum & Email

Class announcements and important information from the instructor will be posted in the News Forum within Moodle. Email messages are sent to the email address you listed on the registration form. Please let the instructor know if you would like to use a different email address.

Academic Integrity

All work completed in this course must be original work by the individual. Plagiarism occurs when a student uses ideas or information of another person without giving credit

to that person. If plagiarism or another act of academic dishonesty occurs, you will not receive CE credit for this course and may be blocked from future Basic Skills courses which will affect your eligibility for the Nebraska Public Librarian Certification program.

Disabilities

Students with disabilities are encouraged to contact the instructor or Holli Duggan for a confidential discussion of their individual needs for accommodation.

Dropping the Class

If for any reason, you need to drop the class, please contact the instructor or Holli Duggan in order to cancel the registration as soon as possible.

CE Credit

In order to receive CE credit, you must be registered for the Nebraska Library Commission's Public Librarian Certification program. If you're not yet a participant in this program, please submit an application, as soon as possible, at:

- <http://nlc.nebraska.gov/ce/plcertapponline.asp>

After the course is completed, the instructor will submit grade information to the Nebraska Library Commission. Students who successfully complete the course will receive two CE credits which will be added to their CE record.

For current Public Librarian Certification participants, you may review your online CE record at:

- <http://nlc.nebraska.gov/CE/lookup.asp>

Professional Conduct:

Students are expected to conduct themselves in a professional manner. This is an essential quality for all professionals who will be or are working in the library profession. Students are expected to:

- Be familiar with the American Library Association's Code of Ethics
- Participate in interactions and class activities in a positive manner
- Treat others with respect, including classmates, the instructor, and Nebraska Library Commission staff members
- Complete assigned readings, contribute regularly to discussions, and respond respectfully to others
- Submit assignments by the due date
- Follow the Discussion Board Guidelines as described below

Discussion Board Guidelines:

Learning is a collaborative process. Discussion boards allow us to reflect on the course materials and to interact and learn from one another. Online communication lacks the nonverbal cues that help us understand when we talk with someone face-to-face. It's important to make your message and meaning as clear as possible.

- Check for spelling, punctuation, and grammar. Please don't type in ALL CAPS, as it's hard to read and is often the written equivalent of yelling. Avoid using slang as others may not understand what you mean.
- Respect each other's ideas and experiences. It's fine to disagree or to offer a differing opinion, but do so respectfully.
- Do not post inappropriate language or derogatory remarks.
- Be courteous and considerate of fellow learners, as you would be in an in-person classroom.
- Post more than two- or three-word replies such as "I agree," "I don't know," or "Good point." Add a few sentences that explain your response or that ask questions.

Failure to adhere to the Professional Conduct and Discussion Board Guidelines, as written in the above sections, may result in an incomplete for the course, restriction from future Basic Skills courses, and/or removal from the Nebraska Public Librarian Certification program.

Additional Tips for Success in Online Classes:

1. Set aside a specific time during your day for this course, whatever time works best in your schedule. Use this time for reading course materials and completing assignments.
2. Don't put off the work until the last minute.
3. Ask questions! Whether you have a question about the class materials, using Moodle, or anything else, please don't be afraid to ask. We're here to help!
1. Check in and contribute to the class regularly. This class is only two weeks, so daily participation is important to stay engaged and on-track.
2. If you're having any problems with Moodle, contact the instructor or Holli Duggan right away.

If you have any questions, please contact your instructor or the Continuing Education Coordinator.

Holli Duggan

Continuing Education Coordinator

Appendix E: Moodle Practice Course


Included below are screenshots of the homepage of the practice Moodle course, and the two forum activities within the “Forums” section that illustrate introductory activities. To explore the module in more detail, the Moodle practice course can be accessed at:

- Website: <https://ncampus.nebraska.gov/>
- Username: testuseraccount
- Password: &1Library&

Moodle Test Course

Home / Courses / Basic Skills / Practice Course

Test Course Your progress ?

 **News forum**






Announcements from your instructor will appear in this forum. Click on "News forum" to read the welcome message.

Topics

Depending on your instructor, this main content area may be arranged by topics or by weeks.

Within each box, you'll find assignments, forums, resources, and/or any other documents that you'll need to read or complete by the listed due date.

The following list includes icons that you may see in your courses with a description of what they are followed by more detailed descriptions and space to practice each:

-  - A link to an online resource/URL
-  - Forum
-  - Word document
-  - PowerPoint
-  - Assignment with due date

Links to Online Resources

The links below are simply online resources from other websites.

Next to each link, you'll notice a little box. This is an "activity completion" box. Some instructors use these boxes as grades. For example, when you open these links (in order to read an article), you'll notice a blue checkmark appear. This tells the instructor you've completed the task.

Practice clicking on each to open the resource.

 Basic Skills for Nebraska Librarians	<input checked="" type="checkbox"/>
 Nebraska Library Commission	<input checked="" type="checkbox"/>
 Nebraska Memories	<input checked="" type="checkbox"/>

Forums

Learning is a collaborative process. Discussion boards (or forums) allow us to reflect on the course materials and to interact and learn from one another. Online communication lacks the nonverbal cues that help us understand when we talk with someone face-to-face. It's important to make your message and meaning as clear as possible.

Discussion Board Guidelines:

- Check for spelling, punctuation, and grammar. Please don't type in ALL CAPS, as it's hard to read and is often the written equivalent of yelling. Avoid using slang as others may not understand what you mean.
- Respect each other's ideas and experiences. It's fine to disagree or to offer a differing opinion, but do so respectfully.
- Do not post inappropriate language or derogatory remarks.
- Be courteous and considerate of fellow learners, as you would be in an in-person classroom.
- Post more than two- or three-word replies, such as "I agree," "I don't know," or "Good point." Add a few sentences that explain your response or that ask questions.

There are two practice forums below. Click on each to complete the tasks given.

 Three Questions	<input type="checkbox"/>
 Responses	<input type="checkbox"/>

Forum Activities within the above “Forums” section:

Three Questions



This forum is to practice starting your own discussion thread. Instructors will often assign forum discussions by asking you to submit one original discussion post and then to comment (or reply) to several others' posts.

- To start a new discussion thread, click the "Add a new discussion topic" button below.
- Type a few words in the "Subject" box to give your readers an idea of your post (this is similar to the subject line of an email).
- Click in the message box to start typing.
- You may also attach a file if necessary (although it rarely is within forums).
- Click the blue "Post to forum" box.

Now, it's your turn!

Start a new discussion thread and answer these questions:

1. What is your name?
2. What is your quest?
3. What is your favorite color?

Responses



Now that you know how to start discussions, it's time to practice responding to someone else's thread.

Below, you'll see my discussion thread. Click on the title "Respond here." This will take you to my original post.

At the bottom of my post, you'll see a "Reply" option in the lower-right corner (or somewhere on the bottom, depending on your screen). This will take you to a new message box where you can reply with thoughts or questions.

Once you're done typing, click on the "Post to forum" button at the bottom.

Word and PowerPoint Documents

This is just to practice opening or downloading attached documents that may be used by instructors.

Click on each and they should open automatically. Depending on your browser and computer, it may ask you if you want to "open," "save," or "save as."

If a document doesn't work when you click "open," you may need to save it to your computer first, then open it from there. (Just make sure you remember which folder you save it to.)



Example 1



Example 2



Assignment with a Due Date

Learning how to submit an assignment by uploading a file might seem a little tricky at first, but here is the chance to practice.

For assignments, you'll need to upload and submit a document.

To do this, you'll first click on the assignment link which will have more directions and details about what you need to do.



Practice Assignment Due: ASAP



Additional Practice Space

Other Information

The above topics are really the most important. Feel free to explore more of Moodle to get more comfortable with the system.

You could try editing your profile to add a little bit more about you. Classes are a great way to start meeting or getting to know fellow librarians.

In the upper-right corner of the screen, you should see a gray outline of a picture next to a small blue arrow. Click this to get to your profile. Under "User details" you can click "Edit profile" to update your email address (if necessary), change your password, add a description of yourself, or add a picture.

Additionally, if you would like to practice sending a message within Moodle, go ahead. At the top, next to your name, you should see a little bubble icon.



Click this bubble, and a window will appear with any messages that you've received or sent. Click on "New message." Search for my name and click on it when it appears. Type your message and click "Send." That's all! I'll try to send you a message in return so you can see how it works.

If you have any questions at all about this course or any of the Basic Skills courses, please let me know!

Holli Duggan

Continuing Education Coordinator

holli.duggan@nebraska.gov

Appendix F: Updated 2018 Organization of Information Course

Included below are screenshots of the homepage of the redesigned Organization of Information class led by Ms. Badger. To explore this module, the lessons, and activities in more detail, the Moodle course can be accessed on the Nebraska Library

Commission's website at:

- Website: <https://ncampus.nebraska.gov/>
- Username: testuseraccount
- Password: &1Library&

Organization of Materials



[Home](#) / [My courses](#) / [Organization of Materials - Section 1](#)

Housekeeping

Your progress ?

Welcome to Organization of Materials

Announcements

Questions/Answers

If you have questions about anything related to the course -- assignments, reading, resources -- please post them here. Feel free to respond to your classmate's questions.

Syllabus

1. Read the following class [syllabus](#).
2. Complete the poll below to acknowledge agreement.
3. If you have any questions, please contact your instructor as soon as possible.

Syllabus

Syllabus Acknowledgement

Topic 1: Organizing the Library

As you know, libraries are not organized randomly. It may seem like it to the outside world, but we know otherwise. This class seeks to explain why, and how, libraries organize their physical materials. This topic reviews the intellectual basis for many of our present-day cataloging and library practices.

 Section 1: Meeting Our Users' Needs	<input checked="" type="checkbox"/>
 Section 2: How Materials Are Organized	<input checked="" type="checkbox"/>
 Section 3: Making Information Accessible for Library Customers	<input checked="" type="checkbox"/>
 Section 4: The Library Catalog	<input checked="" type="checkbox"/>
 FORUM ASSIGNMENT: How is Your Library Organized? Due 04/04/18	<input type="checkbox"/>







Topic 2: Cataloging

Topic 2 focuses on cataloging, or the process of creating records for library resources. We'll not only look at the rules that guide catalogers, but we'll also examine the different parts of a catalog record. We'll conclude by reviewing various OPAC displays. There are many ways that libraries can display the same information. It's important to realize there isn't a right or wrong way to catalog or display data. Libraries need to focus on what's best for their users; hence, the variety in OPAC displays.

 Section 1: What is Cataloging?	<input checked="" type="checkbox"/>
 Section 2: Cataloging Guidelines	<input checked="" type="checkbox"/>
 Section 3: The Puzzle of Content	<input checked="" type="checkbox"/>
 Section 4: Putting the Pieces Together: The OPAC Display	<input checked="" type="checkbox"/>
 FORUM ASSIGNMENT: What do we use the catalog for, and what needs to be in a catalog record? Due 04/09/18	<input type="checkbox"/>

Topic 3: MARC

In Topic 2: Cataloging, we talked about the puzzle pieces needed to assemble the catalog record. MARC is another one of those pieces. I've mentioned MARC previously, but now we'll dig deeper into it, including its many drawbacks. Roy Tennant's 2002 article, "MARC Must Die" explains MARC's many weaknesses, as well as offers some ideas on its replacement. Yes, librarians have been debating MARC's replacement for more than 15 years!

	"MARC Must Die"	<input checked="" type="checkbox"/>
	How Well Do You Know MARC? Due 04/12/18	<input type="checkbox"/>
Try your best. This is just a practice test.		
	Section 1: What is MARC?	<input checked="" type="checkbox"/>
	Section 2: OPAC Displays and MARC	<input checked="" type="checkbox"/>
	Section 3: Parts of a MARC Record	<input checked="" type="checkbox"/>
	How Well Do You Know MARC? *Take Two* Due 04/18/18	<input type="checkbox"/>

Topic 4: Authority Files

The authority files and authority control constitute a vital piece of the cataloging puzzle. Authority files ensure that names, places and subjects will be represented consistently from catalog to catalog. Authority control not only ensures consistency, but also directs librarians and patrons to other identities an author has published under. The assignment is intended to demonstrate how authority control varies across libraries and booksellers.

- | | |
|--|-------------------------------------|
|  Section 1: What is an Authority File? | <input checked="" type="checkbox"/> |
|  Section 2: How it Works | <input checked="" type="checkbox"/> |
|  ASSIGNMENT: Big Bookstore vs. Library 04/23/18 | <input type="checkbox"/> |







Topic 5: Describing Subjects

Having accurate, descriptive subject headings for an item in the library catalog can make the difference between a well-used and appreciated resource and one that languishes unnoticed on a shelf. The reading discusses how subject headings work, as well as how to locate them in the Library of Congress Authority files.

- | | |
|--|--------------------------|
|  Section 1: What is Subject Cataloging | <input type="checkbox"/> |
|  Section 2: Guidelines for Subject Cataloging | <input type="checkbox"/> |
|  Section 3: How Does Subject Cataloging Work? | <input type="checkbox"/> |
|  QUIZ: Subject Headings, Due 04/23/18 | <input type="checkbox"/> |

Topic 6: Assigning Classification Numbers

Classification numbers not only act as locators, they also group similar topics together. While the reading focuses on Dewey Decimal Classification, it briefly discusses alternative classification schemes. Don't forget about the quiz -- you'll have the opportunity to guess a book's subject based on its Dewey number.

 Section 1: What is Classification?	<input checked="" type="checkbox"/>
 Section 2: Melvil Dewey's Big Discovery	<input checked="" type="checkbox"/>
 Section 3: How Does DCC Work?	<input checked="" type="checkbox"/>
 Section 4: Genre Based or Bookstore Classification	<input checked="" type="checkbox"/>
 QUIZ: Where in Dewey? Due 04/27/18	<input type="checkbox"/>
 Course Evaluation	

Cataloging Resources

The following links are resources that you may find useful:

1. [Common Library Vocabulary, Acronyms and Jargon](#)
2. [Online Dictionary for Library and Information Science](#)
3. [Library of Congress Online Catalog](#)
4. [NLC Cataloging Services and Resources](#)
5. [OCLC Dewey Services](#)
6. [NLC information regarding OCLC and its Dewey Services](#)

Appendix G: Welcome to Organization of Materials Message

Class starts Monday, April 2 and ends Friday, April 27. You'll have access to class materials through Friday, May 4. While due dates are listed, you can proceed at your own pace. I understand that life happens and you may not be able to complete assignments on time. As such, all assignments need to be submitted and completed by May 4 in order to receive credit. I've provided due dates because some people need this kind of structure.

You do not have to be "present" in class at any particular times; the class is designed to work around your schedule. However, there are due dates for assignments, and in order to participate fully in class discussions, you need to post to the Forums. This class lasts a short time, so keeping up is important to a successful experience. You have to complete all class activities successfully in order to get credit for taking the class.

The Class

Cataloging is often portrayed as a scary monster, but chances are, you've done bits and pieces of it throughout your life – either in a previous job or in your normal day-to-day activities. Simply put, cataloging is another term for information organization. My hope is that after you've completed this class, you'll have a new appreciation for cataloging, as well as gain a better understanding of why cataloging is so important, how catalogs work and why libraries are organized the way they are.

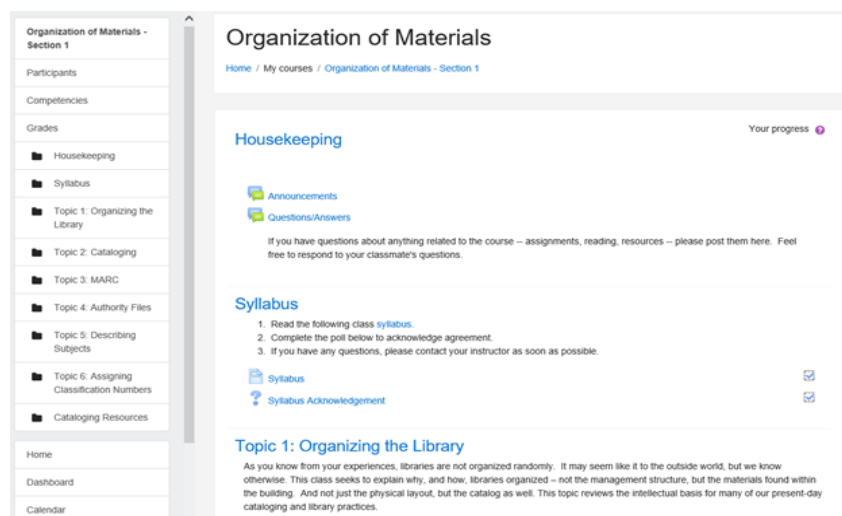
This class involves a combination of readings, discussions and quizzes. Since the class is online and asynchronous, discussions are held in Forums, where class participants

post their ideas and comment on colleagues' ideas. In order to successfully complete the assignments, it is important that you do all of the readings.

Additionally, many of the readings include reflection questions. These questions are designed to make you think about 1) what you just read and 2) how your library fits into the overall library world. These questions are not assignments.

Also, you'll notice additional links throughout the readings. Those are there for informational purposes. Do you need to click on them? No, but the links go into much more detail.

How Moodle Works



The main page for Organization of Materials is arranged in 3 sections. On the far left side, is the Navigation Box. Clicking on the folder icon, will allow you to access each topic without having to scroll. Along the top is a menu bar Home / My courses / Organization of Materials – Section 1. When you're viewing any of the class components

(quizzes, assignments, readings), you can always return to the home page by clicking on Organization of Materials – Section 1.

The middle column has the Housekeeping, Syllabus and six topics, which are:

1. Organizing the Library
2. Cataloging
3. MARC
4. Authority Files
5. Describing Subjects
6. Assigning Classification

Each Topic contains links to readings, assignments, Forums, etc. We'll take the Topics in order, doing the readings, and assignments or activities in order.

At the very bottom, you'll see a list of Cataloging Resources. These are for reference only. You may or may not need them.

Notice that when possible, each link to a reading opens in a new window. This is so you can explore without "losing" the class main page.

Communication

We will communicate in the class and via email. It's important that you check your email at least once a day during the class, and that we have an email address that you are comfortable using frequently for the duration of the class.

If you have questions during the class, contact me at allison.badger@nebraska.gov or 402.471.4031. We won't let software or other stuff stand in the way of learning. If there's a problem, we'll work it out or work around it. Our class motto is

“There’s more than one way to skin a cat.” I hope you enjoy the class and find it useful and informative.

Appendix H: Organization of Materials 2018 Instructor-Led Course Student

Feedback

Response number	Did the course cover the content you were expecting? Why or why not?	What topics would you have liked addressed that were not covered?	What part of this course did you find most useful or interesting?	What part of this course did you find least useful or interesting?	How many hours did you spend on course activities per day? (Including forums, readings, emails, etc.)
1	Yes, however I wish they covered alternative ways to organize materials that was not the dewy decimal system.	Placement of books and less on cataloging.	Seeing how others organized their library.		1-2 hours
2	Yes, it covered many aspects of how a library is and can be organized	I cannot think of additional topics I would like covered	I loved the discussion of how our different libraries are laid out and the discussion about different catalogs. There were great ideas for different materials in our collection.	I am not looking to become a cataloger, so the information about MARC records and subject headings wasn't the most helpful to me, but I did like learning what I'm looking at, so it was still useful information to have.	Less than 1 hour

3	Yes it did, I learned a lot but completed some over a week ago and it's still not graded so I'm just hoping I did it right.	None	Learning about the Dewey Decimal system so I can better understand how to use it.	None really, I enjoyed seeing how other people's libraries are set up.	1-2 hours
4	no as we do not in our small town have the DDC.	ways to do the actual organization of our collection better.	MARC was interesting	DDC as we not longer use it at our library	1-2 hours
5	Yes. The description of the course matched the subjects that were covered.	There are no other topics I would have liked addressed.	I learned a great deal in this class. I appreciated how the class was organized and broken down into manageable chunks. I especially liked learning about the DDC.	All of the material was interesting. A few of the questions on the first quiz were confusing.	1-2 hours
6	yes it covered it well	I would like them to go a little more in depth on library of congress cataloging	the explanations of the different cataloging formats	none I found it all helpful	1-2 hours
7	Yes, I really enjoyed this course.	I'm new to this so I think what was covered was very helpful.	different catigories and information	the test on MARC was hard	1-2 hours

8	Yes. I expected it to cover how items are organized in different library systems.	None.	I found MARC interesting and it could possibly explain why software for libraries is archaic.	The brush up on the Dewey Decimal system was good.	Less than 1 hour
9	I was expecting a much more intense cataloging course. After taking the course I can understand why it is just an overview as we purchase most of our MARC records.	I am new to the library. I feel the topics were well covered.	How to read the MARC record. I had been struggling with this and now it makes more sense to me.	I found all areas important to this subject.	Less than 1 hour
10	Yes. I thought we were going to have to write out an entire MARC record. But that was not required. OK by me.	Are there any libraries out there that organize more like a bookstore? Maybe an article on one of those libraries.	The MARC coding system. I can read the catalog records more easily now, and ascertain more information from them. It really is a genius system in many ways, that consolidates and organizes millions or records. I think that is neat.	None	Less than 1 hour
11	Yes - the description accurately set my expectations.	None - I'm not a cataloguer, so it was a	MARC - I've never messed with this before.	None.	Less than 1 hour

		good introduction to that world.			
12	I really enjoyed learning more about cataloging and how important it is to be precise.	Nothing, the class covered what I wanted covered.	I really liked the way that each section was set up. I loved how the lessons were written in a simple and straight forward manner that made sense and was easy to understand.	The way the Quiz on MARC was set for MARC was VERY confusing and difficult. I understand that it was probably the easiest way to do the quiz, but I would highly recommend discussion instead. I thought I had a firm understanding of MARC, but the quiz really confused me. The other two quizzes were fine.	3-4 hours
13	Yes, it was very helpful to my learning.	Maybe more info on media.	The info on MARC. I wasn't familiar with any of it.	N/A	Less than 1 hour
14	The course went into more detail than I anticipated and I appreciated that.	I learned a lot about topics that I had very little knowledge about. There were no other	I found the assignment comparing search results from bookstores and libraries to be the most interesting.	I struggled with the MARC section.	3-4 hours

		topics that I felt were missing. I wish I could have spent more time trying to understand MARC though.			
15	Yes	n/a	MARC record section		Less than 1 hour
16	I didn't know what to expect.	covered everything	subject cataloging	It was all interesting	1-2 hours
17	Very much so	We are using Bi-Sac which I understand is the bookstore method, but our bi-Sac seems a bit more detailed	I found the Simple Search format for catalog searches intriguing. I had never seen anything like that before.	I found the MARC record tutorial confusing. I think I understand MARC on a broad level (as I did before I took this course) but wasn't able to follow the lesson.	1-2 hours
18	Yes.		MARC	Organizing the Library	1-2 hours
19	Yes, it did. Plus it was not overwhelming! It was enough to tell me about classification.	I cannot think of anything more that I would have wanted to have covered. I have asked a few questions and I think	Since it was not overwhelming, everything was useful and interesting. I gained an understanding of some of the things I use to enter books into our	This class was like Out of the Dust by Karen Hesse -- all the words you need and none that are not absolutely necessary to tell the story. (One of the greatest	

		if I want to know more I have resources to use to find additional information.	system. I did not know what I was doing, I just did them. I have more understanding as to what those tasks were about.	books!! Amazing book...) Nothing was wasted. Not time, not words.	
20	Yes It was a good overview of how things can be organized in the Library.	none	cataloging	MARC was somewhat confusing	1-2 hours
21	Yes, and even more! I loved reading how different libraries organized different books/videos/games at their library! Very informative information.		The area of going into further detail on the cataloging was helpful. I am new to my position and I am still learning things, so without having the proper training or knowledge of this information, this was great and very helpful!	Trying to understand all of the cataloging can be challenging, but it was helpful! I am not sure I can say anything I learned was not useful! I learned a lot.	Less than 1 hour
22	yes and more	I think this covered a great amount	Several parts that i didn't really know all that well yet :)	MARC was a bit tricky for me	More than 4 hours
23	Yes, it was very informative about cataloging.	I think it covered everything I'd expected.	The quizzes were very good. Not so hard that it felt impossible,	None.	Less than 1 hour

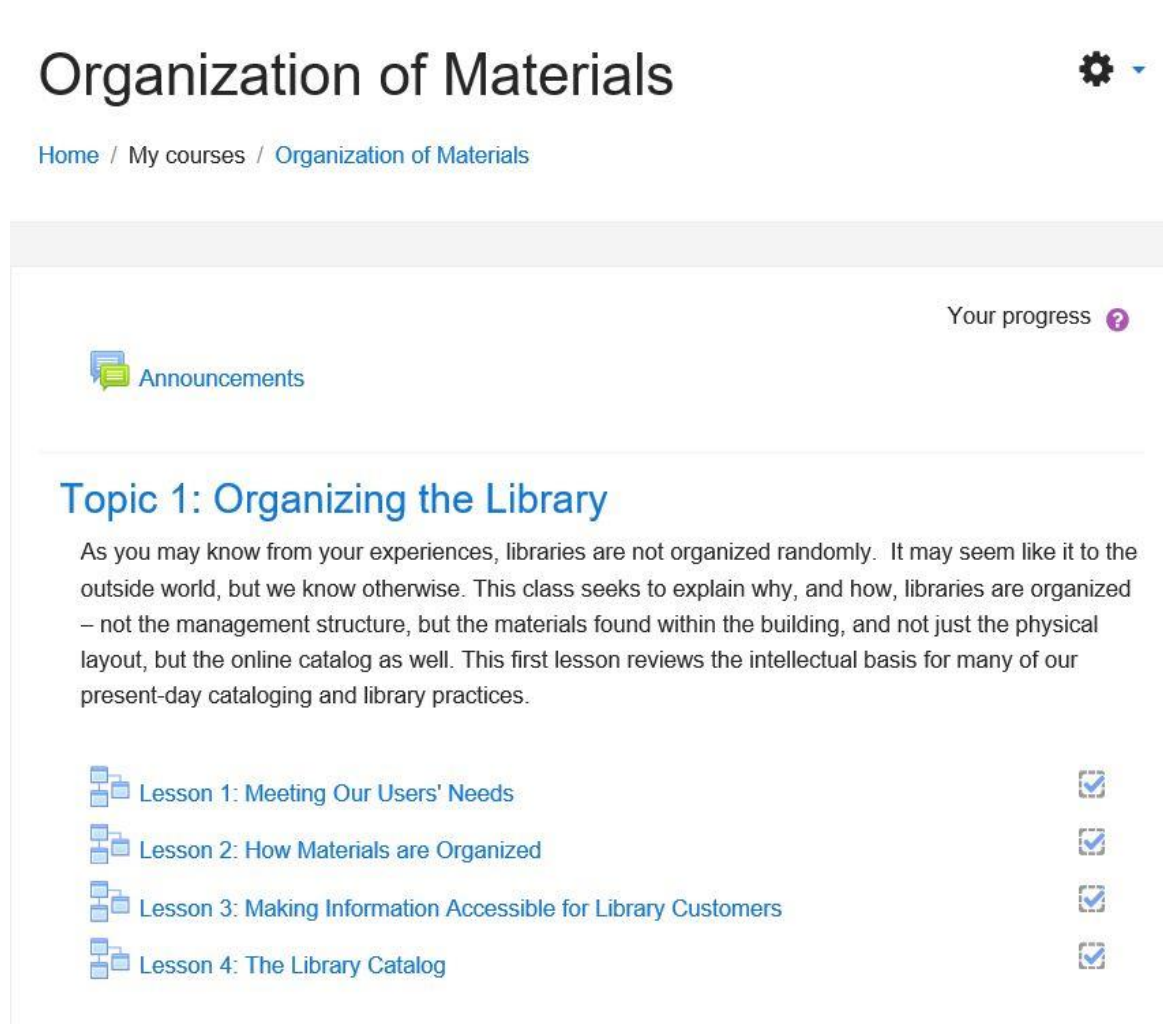
			but still challenging.		
24	It was very well done. I got an overview that will help with my work.	N/A	I am interested in grouping my fiction area by genre, I was pleased to read that increased check-outs in places that implemented it.	n/a	

Appendix I: Preliminary Self-Paced Organization of Information Module

Included below are screenshots of the homepage of the preliminary self-paced Organization of Information module. To explore this module, the lessons, and activities in more detail, the Moodle course can be accessed on the Nebraska Library

Commission's test website at:

- Website: <http://moodletest.nlc.state.ne.us/>
- Username: testuseraccount
- Password: &1Library&



The screenshot shows the Moodle course interface for 'Organization of Materials'. At the top, the course title is displayed in large black font, with a gear icon and a dropdown arrow to its right. Below the title is a breadcrumb trail: 'Home / My courses / Organization of Materials'. A light gray horizontal bar separates the header from the main content area. In the top right of the main area, it says 'Your progress' followed by a question mark icon. On the left, there is an 'Announcements' section with a speech bubble icon. The main content area features the title 'Topic 1: Organizing the Library' in blue. Below this title is a paragraph of text explaining the course's focus on library organization. At the bottom, there is a list of four lessons, each with a folder icon and a checkbox icon to its right. All four checkboxes are checked.

Organization of Materials

Home / My courses / Organization of Materials

Your progress ?

Announcements

Topic 1: Organizing the Library

As you may know from your experiences, libraries are not organized randomly. It may seem like it to the outside world, but we know otherwise. This class seeks to explain why, and how, libraries are organized – not the management structure, but the materials found within the building, and not just the physical layout, but the online catalog as well. This first lesson reviews the intellectual basis for many of our present-day cataloging and library practices.

- Lesson 1: Meeting Our Users' Needs ☒
- Lesson 2: How Materials are Organized ☒
- Lesson 3: Making Information Accessible for Library Customers ☒
- Lesson 4: The Library Catalog ☒

Topic 2: Cataloging

Topic 2 focuses on cataloging, or the process of creating records for library resources. We'll not only look at the rules that guide catalogers, but we'll also examine the different parts of a catalog record. We'll conclude by reviewing various OPAC displays. There are many ways that libraries can display the same information. It's important to realize there isn't a right or wrong way to catalog or display data. Libraries need to focus on what's best for their users; hence, the variety in OPAC displays.

-  Lesson 1: What is cataloging? 
-  Lesson 2: Cataloging Guidelines 
-  Lesson 3: The Puzzle of Content 
-  Lesson 4: Putting the Pieces Together - The OPAC Display 

Topic 3: MARC

In Topic 2: Cataloging, we talked about the puzzle pieces needed to assemble the catalog record. MARC is another one of those pieces. I've mentioned MARC previously, but now we'll dig deeper into it, including its many drawbacks. Roy Tennant's 2002 article, "MARC Must Die" explains MARC's many weaknesses, as well as offers some ideas on its replacement. Yes, librarians have been debating MARC's replacement for more than 15 years!

-  How Well Do You Know MARC? 

Try your best. This is just a practice test.

-  Lesson 1: What is MARC? 
-  Lesson 2: OPAC Displays and Parts of MARC Records 
-  "MARC Must Die" 

Read this article for a brief discussion on some of the weaknesses of MARC

-  How Well Do You Know MARC? *Take Two!* 

Topic 4: Authority Files

The authority files and authority control constitute a vital piece of the cataloging puzzle. Authority files ensure that names, places and subjects will be represented consistently from catalog to catalog. Authority control not only ensures consistency, but also directs librarians and patrons to other identities an author has published under. The assignment is intended to demonstrate how authority control varies across libraries and booksellers.



What is an Authority File? And how does it work?



Topic 5: Describing Subjects

Having accurate, descriptive subject headings for an item in the library catalog can make the difference between a well-used and appreciated resource and one that languishes unnoticed on a shelf. The reading discusses how subject headings work, as well as how to locate them in the Library of Congress Authority files.



Subject Cataloging



QUIZ: Subject Headings



Topic 6: Assigning Classification Numbers

Classification numbers not only act as locators, they also group similar topics together. While the reading focuses on Dewey Decimal Classification, it briefly discusses alternative classification schemes. Don't forget about the quiz -- you'll have the opportunity to guess a book's subject based on its Dewey number.

- | | |
|---|-------------------------------------|
|  Classifications and DCC | <input checked="" type="checkbox"/> |
|  Where in Dewey? | <input type="checkbox"/> |

Course Evaluation

- | | |
|--|--------------------------|
|  Course Evaluation / Feedback | <input type="checkbox"/> |
|--|--------------------------|

Cataloging Resources

The following links are resources that you may find useful:

1. [Common Library Vocabulary, Acronyms and Jargon](#)
2. [Online Dictionary for Library and Information Science](#)
3. [Library of Congress Online Catalog](#)
4. [NLC Cataloging Services and Resources](#)
5. [OCLC Dewey Services](#)
6. [NLC information regarding OCLC and its Dewey Services](#)

Appendix J: Organization of Materials Self-Paced Module Student Feedback

Response number	Did the course cover the content you were expecting? Why or why not?	What topics would you have liked addressed that were not covered?	What part of this course did you find most useful or interesting?	What part of this course did you find least useful or interesting?	How many hours did you spend on course activities in total? (Including readings, emails, etc.)
1	Yes. I learned a lot about how libraries organize information!	Maybe a longer section on Marc records	I really enjoyed the Dewey section	I honestly found it all interesting and useful.	1-2 hours
2	Yes. Out of all the courses I have taken so far, this one has been the best. I loved how it was presented! Very informative -- and easy to understand.	Maybe a little more depth regarding Bibframe if that is the way of the future when LOC switches over.	All of it. I really liked the portion about the parts of a MARC record. The illustrations and color-coded parts really helped me understand better. I wish I had access to this info after the course is over, because I could see myself referring back to it a lot.	I see how the MARC stuff is useful, but if LOC is switching to Bibframe shouldn't we be training more people to get more familiar with that?	3-4 hours
3	Yes it covered a lot of what I was expecting. I expected	I would have liked to have the	I am really interested in understanding	The only thing that was truly difficult for	3-4 hours

	to begin learning about how an item is recorded into a library's catalog.	opportunity to create a record.	more about classification. I want to become more familiar with the DDC.	me was keeping track of how the scoring happened with each section. I believe I answered one of the questions twice because I was nervous I hadn't answered it and I received no verification after completing my response.	
4	Yes.		Every part was useful to me.	N/A	More than 4 hours
5	The course covered the areas I was hoping it would - specifics that I had not been aware of before.	Cannot think of any.	The existence Authority Files section was new to me. As I was reading, I thought, "Well, of course, they have to have something like this... a master list so everyone uses the same terms/names. It's so logical!	Dewey Decimal System. Our library has switched our non-fiction to bookstore-type classifications, but it was a good reminder of how it works.	More than 4 hours
6	Yes, I thought we might talk about our individual libraries more, but that would	N/A	I liked breaking down MARC, it makes much	Nothing in particular seemed uninteresting	3-4 hours

	maybe make more sense for the discussion board formats		more sense now.	or not useful. I do think some quiz questions were debatable - I would expect Virgins of Venice to be more religious history vs general European history; and, I know that Harry Potter could be boarding school for subject, but the paragraph listed with it specifically mentions wizardry, and reading tea leaves (psychic), which seems more important to the story than the boarding school aspect.	
7	Yes! Cataloging can be a bit overwhelming. It's like talking a different language.	All were covered. I'm always interested in learning new ways to provide information to our patrons.	I love learning about the different ways to display your collection. The majority of our library uses the Dewey Decimal	MARC records. Ugh!!! It is so hard to understand.	3-4 hours

			System, but our Teen Nonfiction is the Bookstore Method. We haven't really seen a difference in circulation numbers.		
8	Yes. I was expecting to cover information on different types of cataloging systems.		I wasn't as familiar with MARC as I thought. When I took the pretest, I was totally guessing on everything.		3-4 hours
9	Yes, I have already taken the Cataloging class. I was expecting this to fill in a few blanks that the other class didn't. It did.	Nothing	I really liked this new format. Self paced classes work so much better for me.	The explanation for Dewey.	3-4 hours
10	yes! I am a new library director and it was very helpful!	I thought it was all very good, enjoyed it a lot. Not sure what should have been included, it seemed to cover all the questions I had coming into the course.	the MARC! I am a new library director and MARC terrifies me! Not so much now that I know more about it!	I liked all of it, being new to the library some of this is all Greek to me, so everything the course covered was very useful to me!	3-4 hours
11	yes and no. I was hoping for more practical information....not just	I would have liked to have had more practical	honestly, not much. This class was pretty boring,	all of it.	3-4 hours

	professional information.	ideas shared on how to organize my library based on patronage.	straight forward and not very interesting.		
12	Yes, the title of it said it all.	None, it did it's job well.	I always love a good review of Dewey.	MARC, Hurts my brain.	3-4 hours
13	Yes, more than what I was expecting.	Everything was addressed.	The quizzes.	Nothing.	1-2 hours
14	yes, touched most every thing I expected.	none	Dewey Decimal Classification	MARC- still find it confusing.	More than 4 hours
15	Yes, it did. it was rather challenging, but I feel loved me I learned a lot.	None	The Dewey Decimal System	Nothing	More than 4 hours
16	Yes - Would have like to get a little more in depth with the explanations of the subfield/field/subfield code, etc. it as a little confusing trying to define them all this was the first time I had heard about these terms	I don't know.	i found it all interesting - but the MARC for me was interesting and confusing at times.	I found it all interesting. I am glad that I took this course.	3-4 hours
17	Yes. I was expecting to learn about cataloging. This was a very interesting course. I would have liked more assignments so that I could learn more.	None. Not sure why this is a four week course. I completed it in one week. I liked the self-paced class. I like not having to post to	Assigning classification numbers and whether or not to use the Dewey Decimal System.	The Authority File topic was a little confusing.	1-2 hours

		forums and post to others peoples posts in a forum.			
18	Yes.	I thought more time would be spent on Dewey.	MARC records.	n/a	1-2 hours
19	Yes!	I would like to have learned a bit more about the Dewey nonfiction subcategories (the "smaller Russian Dolls").	All of it.		More than 4 hours
20	Yes it did.	I can't think of anything	The information on the Dewey Decimal System.	MARC	More than 4 hours
21	Yes, nice overview of library organization methods, classification & cataloging.	Did not know that much about the topic before, wouldn't know what was left out.	Had no experience with MARC, found that very interesting.	All content provided some benefit. Thanks for a great class.	More than 4 hours
22	Yes it did, generally speaking.	I was curious as to how the number to the right of the decimal in DDC are assigned, and didn't see that information	It was good to have practice in putting information and resources to use in the quizzes to see if I had the correct grasp on it.	A couple of things confused me, one being the questions on	More than 4 hours

		discussed. It was good to have the link to the OCLC resource for the assignments of numbers to the left of the decimal.			
23	Yes	None	The Marc records	None	More than 4 hours
24	Yes, it did. I was expecting to gain insight into the reasoning behind the organization tools used in the library system, which were provided.	I am not aware of other topics related to the subject that were not covered.	I found the breakdown of what's what in a MARC record was very interesting, and will likely come in handy in the future.	I genuinely found the entire course interesting.	More than 4 hours
25	This was an interesting course. I was hoping for more information on building Dewey numbers to the right of the decimal. I have been studying DDC on my own and hope to take a class in the future to better learn how to build the numbers to the right of the decimal point.	The libraries in my area still use DDC for nonfiction books. I was hoping for deeper, more detailed information on how to build Dewey to the right of the decimal point.	All that was offered, it is an interesting class.	It was all interesting. I found that Topic 6, the section on DDC, made me anxious and afraid I wouldn't pass this class.	More than 4 hours
26	I thought the class would also cover the physical layout of materials. Other than	I wanted to know more of how to search for	The most useful to me was the Dewey	The card cataloging was probably the least	3-4 hours

	that, it was exactly like I was expecting!	items better in a catalog.	Decimal System classification information.	useful, but it was very interesting!	
27	Yes it did	None that I am aware of at this time	Classification-Dewey	Historical, although I recognize it does serve a purpose.	3-4 hours
28	yes	I need more practice with MARC records and DDC, but I think they were both covered well and good additional resource info is provided	MARC record info	I really found everything useful and interesting.	3-4 hours
29	Yes, I really learned a lot on where to find the best place for the books	I hope everything is done. When looking at the grades, there should be more. To do but I don't see it.	The Dewey system		More than 4 hours